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EDITED BY

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Medical
Dr. F. A. Collier
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ILLINOIS AND INDIANA MEDICAL AND SURGICAL JOURNAL.

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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

Observations on Insanity, and its Treatment in Private Practice.

By JOHN EVANS, M. D., Professor of Obs., &c., in "Rush Medical College," Chicago.

The subject of Insanity, from the number of institutions exclusively devoted to its treatment, and of those engaged in its investigation, has almost become a separate branch of medical science. This tends to two opposite results; the one of great utility, and the other prejudicial to the best interests of the insane. From the devotion of a large body of able physicians to the investigation of the pathology and treatment of the disease, important discoveries have been made, and almost a complete reformation in the treatment of the disease, and in public opinion has been effected. But, on the other hand, from the fact of these institutions and physicians being exclusively engaged on the subject, the great body of the profession pay much less attention to it, and are disposed to leave it entirely in the hands of hospital physicians.

While all will admit that a well regulated hospital for the insane is the proper place for their treatment, it should be remembered that many cases may be well treated and speedily restored by proper management in private practice. The insane often suffer from a want of attention to the subject of insanity, by the great body of the profession. It will not unfrequently be found that this state of things has prevented the necessary remedies from being applied, until the patient has become incurable, or has caused him at great expense and loss

of time in treatment, to be sent to some remote hospital, where, had a timely application of those means at the command of the general practitioner been resorted to, he would have been speedily restored. It is in view of this consideration, that I propose calling the attention of the profession in the west to the subject at this time, regarding it of the greatest moment here, where we are almost entirely unprovided with hospitals for the insane, and where it is entirely beyond the ability of large numbers of this unfortunate class of patients, to obtain admission into such institutions.

I shall briefly consider some of the causes, symptoms, especially of the incipient stage, and pathology, and then speak more particularly of the treatment proper to be adopted in private or general practice.

Causes of Insanity.—Amongst the causes that have been enumerated, may be found almost every unpleasant mental condition and physical irregularity. They may be divided into two classes: *the physical* and *the moral* or *mental*.

Although it is difficult to classify, yet, this will be found to present as clear a line as can be drawn. The reciprocity of the two classes of causes, may in many cases be close, as there must be physical derangement before insanity can be established, and the influence that may be exerted by moral causes, will be often productive of a train of disease before the insanity is developed. But, notwithstanding these difficulties, this is the only classification of the causes, that they will in my mind admit of, without going into long hair-splitting definitions, that would more embarrass the subject than such classifications would elucidate it.

The physical causes, include all those that make the primary impression from which the insanity results upon the physical man; as, when disease of the stomach has produced insanity, without any direct or powerful mental impression. There are cases which it would be difficult to determine, to which class they belong; but not more than of those for whose insanity no cause at all can be assigned,—and others that seem to be produced by both physical and moral causes.

Most of the diseases of the system have been known more or less, directly, to produce insanity; but there is a great difference in this respect, for while some but seldom have been known to have this effect, others frequently produce it.

From what has been said it is plain that an almost countless variety of physical influences may be properly considered under this head.

Amongst them are climate, varieties in the species, seasons, intemperance, modes of life, errors in education, age, temperament, injuries of the head, sudden arrest of perspiration, healing of issues, metallic influences, disorders of the menses, puerperal influences, the critical period, worms in the intestines, fevers, dyspepsia, apoplexy, epilepsy, hereditary predisposition, indulgence in vicious habits, as masturbation, prostitution, &c.

Climate.—There is perhaps less direct influence in the production of insanity in the climate, than that that is exerted in the formation of an energetic and vigorous character, and the reverse. We find in those countries where the climate is such as to produce a languid and dull condition of the moral and physical man, as in tropical climates, insanity is less frequent; while in the temperate latitudes we find the disease much the most common. Although insanity is said to prevail to a great extent in the British East Indies, it must be recollected that the inhabitants are northern in their origin, education and habits. The following statistical table, derived from various sources, is as nearly correct as the information on the subject will enable me to make it.

TABLE No. 1.

Showing the proportion of Insanity to the population in different countries and latitudes.

Norway, bet. the 58th and 80th Deg. of N. Lat.	has insane, 1 to every	551
Scotland, " 55th " 59th " "	1	563
England, " 50th " 55th " "	1	793
U. States,* " 30th " 48th " "	1	985
Netherlands, " 50th " 54th " "	1	1050
France, " 43d " 50th " "	1	1000
Italy, " 40th " 46th " "	1	4879
Spain, " 36th " 44th " "	"	7181

* This is taken from the census of 1840, and includes the insane and idiotic.

While this table shows that in the higher latitudes there is a greater proportion of insanity, it must be remembered that there are many other circumstances, that have great influence in modifying the results.

Even in the United States, there are both moral and physical causes influencing the results independent of climate, but that it has an influence will be apparent from a table, made out from the census of 1840, in another part of this article.

Varieties of the race.—Considering the human family as divided into five varieties, it will be reasonable to expect that they will, as they are varied in character and habits, be different in their liability to insanity. While we have in reference to some of the varieties but little positive information, we are warrantable in the conclusion that the Caucasian is by far the most obnoxious to the disease. Of the Mongolian, we can only give the reports of travellers, who say that insanity is very rare in China. Of the aboriginal American we also have but little information. Baron Von Humboldt found but few cases among them, and from sources of information of a more recent date, we have nothing that in the least goes to controvert the opinion drawn from his observations. Of the Malay or South Sea Islander, we have no positive information, except from Capt. Wilkes. In a letter to Dr. Brigham, he says, "During the whole of my intercourse among the natives of the South Sea, I met with no deranged person, and I am satisfied that insanity is a disease incidental alone to civilized life. I am confident that had any instances of mental derangement among the natives occurred, it would have been observed by us."

By an estimate of the number of insane among the blacks, of course including mulattoes and all other degrees of the admixture of the white and black races, we find that there is in the United States, as reported in the census of 1840, one colored person insane or idiotic in every 982.

By a reference to table number 1, it will be seen that of all the inhabitants of the United States there are insane or idiotic, one in every 985, and of course the result would be but little varied if we would from the same data make out the per cent. of insane and idiotic among the white inhabitants. From all that can be learned, we are justifiable in the conclusion that the African in his native country, is almost exempt from insanity.

Seasons.—The only means we have of determining the influence of the seasons in causing insanity, is deduced from admissions at different seasons into the different institutions for their treatment; and it must be remembered that other circumstances have much influence in determining these results. Patients are not generally admitted at any particular period after the attack. The statistics show more admissions

during the summer months. But heat being favorable to excitement, and travelling being better during this season, may have more influence in producing the result than the periods of attack.

Intemperance.—This curse of our race, as in almost all other diseases, so in insanity, is found to be one of the most fruitful causes. And amongst the physical it is by far the most prolific of all others. So far as statistical information has been obtained, this is not only true of this country, but also of all others.

The immediate intoxicating effects of *ardent spirits*, are such as to lead us at once to infer that their continued influence would soon derange the mind. There is a species of derangement peculiar to drunkenness, which is not included by the definition of insanity as here treated, called *mania a potu*, of which I do not propose to speak. The remarks I make refer to insanity, strictly so called.

Intemperance in the use of *opium*, too, might be expected a priori to produce insanity. The powerful impressions made on the brain and nervous system by this drug, are such that when long continued they often result in derangement of the mind.

Intemperance in the use of *tobacco*, which also has a powerful influence over the nervous system, might be expected often to result in insanity. And in reference to it Dr. Woodward says, "that tobacco certainly produces insanity I am not able positively to observe; but that it produces a predisposition to it I am fully confident."

Modes of life.—As there is a marked influence exerted on man by his manner of living, both physically and mentally, some modes seem more than others favorable for the development of insanity.

Sedentary habits are destructive of that physical energy necessary to health, and are by most authors regarded as a cause of insanity. Keeping irregular hours, too, might with great propriety be noticed in this connexion; for all agree that the habit has a tendency to undermine the health, and disturb the equilibrium of the mind. In fact all excesses may be regarded as tending to produce insanity where there is a predisposition to it. Luxurious living is favorable to it, as well as a meagre diet. In proof of this, we find in Europe the

highest and lowest classes, more particularly, are liable to the disease.

Errors in Education.—Physical education is more necessary to the well being of the individual, than mental; for without it, he cannot enjoy health of body or vigor of intellect. Parents too often overlook this valuable truth, and hoping to make intellectual prodigies of their children, tax the mind to the utmost, while the body and limbs are left without that exercise which is so necessary to their development. And while they often succeed in inducing a precocity of mind, they lay the foundation for early disease and death; or institute an irritation in the brain to result in insanity or imbecility. The part of the system most exercised, during development especially, grows much faster than others; and by early taxing the brain, it is too rapidly developed, and disease, either in the brain or some part of the enfeebled and imperfectly developed system, is the consequence. How few of the many remarkably intelligent children, ever arrive at the age of maturity. And of those that do, how very few, realize the bright hopes predicated upon their precocity. Children, and especially those that give evidence of premature brilliancy of intellect, should not be put to study until they are so far developed, that the physical system can endure the fatigues of mental applications. Until the age of seven or eight years, the brain is exceedingly delicate in its texture, and of but little more than a fluid consistence. Is it then strange that the general practice of modern times of forming infant schools, and by other means urging the child forward in education with hot-house rapidity,—placing it under all possible excitements to induce it to apply its mind to study, should lay the foundation for disease, insanity, imbecility, or idiocy?

Again as the integrity of the mind depends upon the health and regular development of the instrument by which it acts, it is necessary that in education care should be had that the different faculties or powers, or the organs through which they act, shall be properly and regularly exercised and developed. Otherwise we cannot expect a well ballanced mind, without which there will be a predisposition to insanity. A child that is educated to a frequent indulgence of anger, while the controuling sentiments are suffered to lie dormant, will be strongly predisposed to insanity by this great error in its edu-

cation. And so with other passions and faculties—when one is inordinately developed and others neglected, it will constitute a strong predisposition to derangement of the mind.

Age.—The period of youth is almost entirely exempt from insanity. I saw a little boy in the N. Y. State Lunatic Asylum, last spring, about twelve years of age, who was quite deranged. But such cases are exceptions to the general rule. Dr. Earle says “such cases are extremely rare.” Dr. Rush mentions four cases of the kind, which came within his knowledge, and in St. Luke’s Hospital, England, there was an insane child of but *two years* of age. Old age is pretty well exempted too, except from senile insanity, which does not come under this head. More persons are attacked between the ages of twenty-five and forty, than at any other period in life. It is then that man acts most, and is most subjected to the reverses of fortune and vicissitudes of life, that exercise such influences in producing this disease.

Temperament.—The sanguine and nervous temperaments are most favorable for the development of diseases of the mind. The first on account of the impetuosity of action in the system generally peculiar to it, and the other because of its excitability. Many of our best writers say that the bilious or choleric are particularly subject to mania. There have been some curious statistics collected in reference to the color of hair, eyes, and the complexion of the insane, but as nothing definite has been made out from them, I will not trouble my readers with their perusal.

That *injuries of the head* should produce insanity, is no more strange, if they affect the brain, than that those of the eye should impair sight, or of the ear hearing. And although the brain may sustain injuries of considerable extent, without a derangement of the mind, it is stated by some of the highest authorities, that no case of the kind has occurred, where corresponding portions of the hemispheres were injured or diseased at the same time. If we admit the brain to be the organ of the mind, which few if any doubt, this is what we would expect, reasoning from analogy.

A sudden arrest of perspiration and the healing of issues have frequently been followed by a derangement of the mind.

Metalic influences.—Esquirol, after observing that persons exposed to the heat of the sun, and the fumes of charcoal, are

subject to insanity, says: "Those who are obliged to work in the midst of metallic oxyds, cooks and miners, are liable to the same attacks.

"The vapour of lead, produces in Scotland a species of insanity, in which the maniacs lacerate themselves at every opportunity, and which the Scotch peasants call Mill-reeck.

"The miners of Peru and Mexico, are subject to a peculiar form of insanity."

Disorders of the menses, puerperal influences and the critical period.—From the powerful influence exerted by the uterus and ovaries over the nervous system of the female, are prolific causes of insanity. Esquirol says, nearly one-twelfth of the women at the Salpêtrière, became insane after confinement.

Worms.—The entozoa, in consequence of the irritation they produce, and the intimate sympathy between the brain and abdominal viscerae, are often found holding a place amongst the causes of insanity.

Fevers.—That insanity should frequently result from fevers is reasonable, in consequence of the general morbid influence exerted by them; and the liability, not only of all the organs of the system to suffer lesions from them, but particularly in consequence of the effects of these forms of disease upon the brain itself.

I was consulted about eighteen months ago, in reference to the case of a young man, of active mind and devoted business habits, he being an extensive grazer in Illinois; who in consequence of a violent attack of remittent fever, and great anxiety, in reference to his business, had become insane.

By the use of the proper remedies for the fever, prescribed by his physicians, his mind had been temporarily restored; but by too early application to his business, and a relapse of the bilious derangement of the system, his insanity returned upon him. He was early taken to an Eastern Lunatic Asylum, and was speedily restored to health.

Dyspepsia.—The intimate sympathy through the pneumogastric nerve, existing between the stomach and brain, and their dependence through digestion and assimilation, and the influence they exert over the circulation, would lead us to the conclusion, that disease of the stomach would exert a morbid influence over the brain, and be liable to produce insanity.

Apoplexy.—The violence done to the brain by this disease, is very liable to result in insanity.

Epilepsy.—This is a very common cause of insanity of the most deplorable character. The insanity assumes peculiar forms; generally being most violent after the attacks of epilepsy, and either moderating or entirely subsiding in a longer or shorter time after the convulsions. This is one of the most hopelessly incurable forms of the disease. When once established, seldom giving way to any form of treatment.

Hereditary predisposition, or conformation.—That there is a liability in the progeny of parents affected with insanity, to the disease, is proved by a long train of observations, which have been handed down to us by the highest authorities.

In this cause of, or predisposition to insanity, we find many curious facts. Esquirol says the taint in the system is oftener transmitted from the mother than the father.

It has often been remarked that those hereditarily predisposed to insanity of the same family, are often attacked with it at the same period in life. Burton says that children of aged parents are predisposed to melancholy. "Children who are born before their parents become insane," says Esquirol, "are less liable to mental alienation than those whose birth takes place afterward." The same is true of those who are born of parents who are insane only on the paternal or maternal side, compared with those both of whose parents are insane."

There is generally great similarity in the symptoms in those who become insane of the same family.

In addition to the hereditary influence predisposing to insanity, there is an acquired peculiarity of constitution, which favors the development of this disease. Pritchard thinks this obtains in all cases of insanity where there is no hereditary taint.

Vicious habits, Masturbation, Prostitution, &c.—By looking over the reports of the American institutions for the insane, I was surprised at finding such a large number of cases reported as being caused by masturbation. This cause is almost entirely confined to males; a few females only, being reported under this head. Esquirol says it is because women are more reserved than men. There is, I apprehend, great uncertainty in reference to the amount of insanity caused by

this *secret* vice, as many may become addicted to it after insanity supervenes. Those addicted to the vice, whether causing the insanity or not, are in consequence of it difficult of cure.

From the diseases prostitution is liable and almost certain to induce, not only in the organs of generation but of the general system, it is worthy of a place amongst the physical causes; yet there is no doubt of the powerful moral or mental influence excited by the degradation which is a necessary attendant upon it.

Esquirol says: "One twentieth of the alienated admitted at the Salpêtrière, have been prostitutes. The proportion is much larger in Paris than in any other place.

MORAL CAUSES.

Although as before remarked, physical disease or malformation, is necessary to insanity, it is found that much the larger number of cases can be traced, as an immediate cause, to moral or mental influences. These seem most frequently to coöperate with physical disease, (which is the only actual disease,) in the production of mental derangement.

Those conditions and influences that, by producing an excitement of the mind, predispose to, and cause insanity, like the physical derangements of the system, are so numerous that it would be tedious to enumerate them. A few of the most common of these may be considered under the heads of—the moral condition, the social and intellectual condition, the political and religious condition, war, the civil state, disappointed love, domestic troubles, grief, jealousy, anger, fright, fanaticism, reverses of fortune, disappointed ambition, mortified pride, excessive study, &c.

The moral condition of a people has much to do in the production and prevention of insanity. It is found that in those countries where the people are addicted to vicious habits,—other things being equally favorable—they are much more subject to mental alienation, than where a more wholesome state of moral feeling, and virtuous living are found. And why should we expect it to be otherwise? Does not vice lead to the excesses that derange the general health? And is it not the foundation and source of all misery? Then, as a people are vicious, will they be exposed to more physical disease, and more of the evil inclinations and propensities of

the heart, which produce sorrow and woe, will influence their lives, and in the train of miseries will often be found insanity. It may be that from this fact, originated the idea that the insane are "possessed"—that they are under the influence of the "evil one," for when it originates in vice, it is in a certain sense true.

As the social and intellectual condition of man influences to a great extent his mind, it has much to do in predisposing to and exciting insanity. In those countries where there is little mental culture—where the inhabitants are ignorant, and consequently can have but little to excite the mind, insanity is rare. The untutored savage is seldom insane. He is free from the moral and intellectual commotions that so frequently shake civilized society to its centre. His troubles are principally physical, and as a compensation for the loss of those higher and more exalted enjoyments flowing from the cultivation of the mind, he is more exempt from its diseases.

By a comparison of the proportion of insanity amongst the colored population of the United States, that are in slavery, and those enjoying freedom, as shown by the census of 1840, I find that amongst the blacks in the slave states, there is only 1 insane in every 1557; while in the free states there is 1 insane in every 163. This is the result after correcting the error in the report of Massachusetts, and in a remarkable manner denotes not only the influence of the social condition in producing insanity, but also shows that ignorance affords in a degree exemption from it.

The slave is to a great extent free from the cares and mental anxieties of a life of freedom. As a general rule, in the United States at least, he is provided with wholesome diet in abundance, without the necessity of looking after it; so that the disease and distress that obtain in the lower classes in Europe, where insanity is rife, are comparatively unknown amongst the slaves of our country. There are, however, causes for insanity here of no ordinary character, which, if obtaining amongst a people of intelligence and cultivated feeling, would fill the hospitals, poor-houses, and jails, with their victims. I mean the practice of severing families assunder—breaking the strongest ties of affection, by the rude hand of force and other abuses incident to slavery.

The following table shows the proportion of insanity amongst

the negroes of the United States. Although from some gross errors that have been detected in the census of 1840, from the report of which this has been taken, some are disposed to cast the whole aside as untrue; I think sufficient reliance may be placed on it to lead us to an approximation of the truth in general results. In the calculation I have omitted fractions.

TABLE, No. 2.

Showing the colored population of each State and Territory in the United States, the number of insane and idiotic among them, and the ratio of sanity to insanity.

OF THE FREE STATES.

Whole colored population.	Insane and Idiotic.	Proportion of Insane & Idiotic to sane.	
Maine,	1,355	94	1 to every 14
New Hampshire,	538	19	1 " " 28
Massachusetts,	8,689	67	1 " " 129
Rhode Island,	3,243	13	1 " " 249
Connecticut,	8,159	44	1 " " 183
Vermont,	730	13	1 " " 56
New York,	50,031	194	1 " " 257
New Jersey,	21,718	73	1 " " 298
Pennsylvania,	47,918	187	1 " " 256
Ohio,	17,345	165	1 " " 105
Indiana,	7,168	75	1 " " 96
Illinois,	3,929	79	1 " " 49
Michigan,	707	26	1 " " 27
Wisconsin,	196	3	1 " " 65
Iowa,	188	4	1 " " 47
<hr/>			
Totals,	171,914	1,056	
Making 1 to every 163 in the Free States.			

OF THE SLAVE STATES.

Maryland,	151,515	141	1 to every 1,074
Virginia,	498,829	381	1 " " 1,309
Delaware,	19,524	28	1 " " 697
N. Carolina,	268,549	221	1 " " 1,215
S. Carolina,	335,314	137	1 " " 2,447
Georgia,	283,697	134	1 " " 2,117
Alabama,	255,571	125	1 " " 2,045
Mississippi,	196,577	82	1 " " 2,397
Louisiana,	193,954	45	1 " " 4,310
Tennessee,	188,583	152	1 " " 1,241
Kentucky,	189,575	180	1 " " 1,053
Missouri,	59,814	68	1 " " 879
Arkansas,	20,400	21	1 " " 970
Florida,	26,534	12	1 " " 2,221
Dist. Columbia,	13,055	7	1 " " 1,865
Totals,	2,701,591	1,734	
Making 1 to every 1,557 in the Slave States.			

By the above table we learn from the most reliable source of information at our command, (although allowance must be made for much error,) the number of insane and idiotic among the negroes of each state, and the ratio to the same, as well as arrive at the general results as before stated. By observing

the results in the different states, it will be seen that the proportion of the insane quite regularly increases from the extreme south, where, in Louisiana, there is but 1 insane or idiotic in 4310; to the extreme north, where, in Maine, New Hampshire and Vermont, there is over 1 to every 50. The influence of climate by this would be indicated as considerable.

By a reference to the intellectual condition of the white population of the United States, as shown by the number of persons in each over the age of twenty-one years that cannot read and write, in the following table, also made out from the report of the census of 1840, it will be seen that where there is the least ignorance there is most disease of the mind. This does not hold true in every instance, but it is as a general rule the result.

TABLE No. 3.

Showing the white population of each State in the United States, the number of insane and idiotic, and the proportion they bear to the whole, the number of persons over 21 years of age who cannot read or write, and the proportion they bear to the whole.

White Population.		Insane and Idiotic.	Proportion to the whole.	No. white per. over 21 yrs. of age, that cannot r'd & write	Proportion to the whole population.
WHOLE NO.					
Maine,	500,438	537	1 to ev. 932	3,241	1 " " 154
New Hamp.	284,036	486	1 " " 567	942	1 " " 301
Massachusetts,	729,010	1,071	1 " " 671	4,448	1 " " 164
R. Island,	105,587	203	1 " " 520	1,614	1 " " 65
Connecticut,	301,856	498	1 " " 606	526	1 " " 560
Vermont,	291,218	398	1 " " 731	2,270	1 " " 128
New York,	2,380,890	2,146	1 " " 1,109	44,552	1 " " 53
New Jersey,	351,588	369	1 " " 952	6,385	1 " " 55
Pennsylvania,	1,676,115	1,946	1 " " 861	33,941	1 " " 49
Delaware,	58,561	52	1 " " 1,126	4,832	1 " " 10
Maryland,	317,717	387	1 " " 823	11,605	1 " " 13
Virginia,	740,968	1,052	1 " " 704	58,732	1 " " 12
N. Carolina,	484,870	580	1 " " 836	56,609	1 " " 8
S. Carolina,	259,084	376	1 " " 689	20,615	1 " " 12
Georgia,	407,695	294	1 " " 1,386	30,717	1 " " 13
Alabama,	335,185	232	1 " " 1,445	22,592	1 " " 15
Mississippi,	179,074	116	1 " " 1,543	8,354	1 " " 21
Louisiana,	158,457	55	1 " " 2,881	4,861	1 " " 32
Tennessee,	640,627	699	1 " " 916	58,521	1 " " 11
Kentucky,	590,253	795	1 " " 742	40,018	1 " " 15
Ohio,	1,502,122	1,195	1 " " 1,257	35,394	1 " " 42
Indiana,	678,698	487	1 " " 1,392	38,100	1 " " 18
Illinois,	472,254	213	1 " " 2,217	27,502	1 " " 18
Missouri,	323,888	202	1 " " 1,603	19,457	1 " " 16
Arkansas,	77,174	45	1 " " 1,715	6,567	1 " " 11
Michigan,	211,560	39	1 " " 5,424	2,173	1 " " 90
Florida,	27,943	10	1 " " 2,794	1,303	1 " " 21
Wisconsin,	30,749	8	1 " " 3,843	1,701	1 " " 18
Iowa,	42,924	7	1 " " 6,132	1,118	1 " " 38
Dist. Columbia,	30,657	14	1 " " 2,189	1,033	1 " " 29
Totals,	14,191,199	14,512	mak. 1 to ev. 964	549,732	mak. 1 to ev 25

Political and Religious strifes and contentions, have to a much greater extent than all other causes, produced great and general excitement. On the principle already laid down, this fact would give them a prominent place among the causes of mental derangement. Not only do strifes in politics and religion exert an influence for weal or woe to the mind, but the form of government, as it gives tone to the feelings and caste to the sentiments of a people, may be considered as exerting an influence. Other things being equal, we would expect more insanity in a republic, than a monarchy, as the mind is here called into greater activity. Although few cases are found reported in this country as being caused by political influences, the great anxiety and inordinate excitements consequent upon them, undoubtedly here as in France, and other countries, do produce insanity. The reports of all institutions for the cure of the insane abound in cases produced by religious influences.

War, with its attendant train of evils and sorrows, is a fruitful source of insanity. During the troubles of France, this was particularly demonstrated.

Civil State.—That celibacy is favorable to the production of insanity admits not of a doubt, since at the ages when insanity is the most common, a majority of the good citizens of our country are married, and the reports of all our asylums and hospitals for the insane, show a greater number of single than married persons insane.

Fright.—Many remarkable cases of insanity by fright might be quoted. The effect is often instantaneous.

Anger.—The wife of an acquaintance of mine had been for years in the habit of giving unrestrained latitude to her anger, from trivial circumstances, flying into a violent rage at her husband. They had several times packed up their goods and prepared for a final separation, but the preparation occupied so much time and diverted her mind so as to allow her anger to cool and they would agree to remain together. Her fits of anger became more and more violent until she became entirely deranged. She forsook her home and husband, and wandered over the neighborhood from house to house, uttering the most bitter denunciations against him.

Excessive study.—By an inordinate application of the mind the brain is taxed above what the physical energies will sup-

port, and frequently an irritation is established in the brain which results in insanity.

I have already dwelt more fully on the causes of insanity than the limits of my article seem to justify, because in doing so it has been necessary to adduce many facts that will be found interesting independent of this connection. The other causes referred to are quite common, but from what has been said the reader will readily see the reasons why they should have this effect and I leave them.

FORMS OF INSANITY.

Under this head authors have generally made quite a multiplicity of distinctions, many of which serve much better to display the learning of the author, than to elucidate the subject. The different forms of the disease so often pass into each other without any manifest influence determining the change, that it is exceedingly difficult to make any very accurate distinctions, that will give a clue to the pathology of the case. However, as the peculiarities of these different forms of disease, may be important in directing the moral treatment, I will notice a few of the most prominent. They are *mania*, *monomania*, *melancholia*, and *dementia*. There are distinctions depending upon the organ, or part of the brain, or nervous system affected, not generally treated as varieties of insanity, which are much more properly entitled to the distinction, as derangements of the senses, of the intellect, and of the moral sentiments. That different parts of the brain as well as of the general nervous system, perform different functions, is beginning to be quite generally admitted. And if it be true, why not look to different parts of the brain for disease, when certain feelings, sentiments or faculties of the mind are deranged in their action?

Mania.—This form of insanity is readily recognized. It is characterized by a peculiar wild expression of countenance manifesting great anxiety, perturbation and excitement of the feelings, and is attended with a general derangement of the intellectual faculties. The eyes are injected with blood, and glare wildly. The features become more rigid and are subject to frequent contortions. The hair often becomes dry and stiff, and adds to the haggard appearance.

This form of insanity is the most violent and uncontrollable, but not by any means the most incurable. It often continues

for several days, or weeks, or even months, and passes into one of the other forms of the disease. When this form occurs, it is generally at the onset of the attack. It is that form of insanity most generally attended by, and consequent upon excitement. Of the various forms of this chronic disease, mania is the most active.

Climate, and the peculiarities of the inhabitants have much to do in determining the character insanity assumes. Dr. Ray observes, "I have little doubt that in Great Britain and France, insanity assumes very much less frequently than with us, the form of intense and completely uncontrollable excitement, and when this condition does occur, it is of much shorter duration." Energy is one of the prominent characteristics of the American. He does everything he undertakes with all his might. He distinctly acts on the high pressure system; being accustomed to freedom of thought, speech, and action, constantly pressing forward with the brightest hopes to the highest destinies, while in health, it is but reasonable that we should find him when insane, the subject of the most ungovernable excitement.

Monomania.—The mind may be but partially deranged, that is in reference to but one or two subjects, while the other powers remain unimpaired. Although recognized as a distinct form of the disease by authors, it in fact differs from that of mania only in extent. It often precedes mania, and constitutes a premonitory symptom of its onset. Many persons are to the full extent of the meaning of the term, monomaniacs, who are yet capable of transacting business, and fulfilling competently most of the relations and duties of life. In fact many of the most distinguished persons have been partially deranged. Luther fancied that the devil was in him, and that he heard him speak. Butler in his celebrated *Hudibras*, refers to this in the following lines:

"Did not the Devil appear to Martin
Luther, in Germany, for certain."

Not only does slight disease of the brain frequently exist without destroying the mind, but it frequently has the influence of exalting its powers. Dr. Brigham says "In the writings of Fielding, Metastasio, Pope, Dryden, Rousseau, Madam Roland, Dr. Johnson, Byron, and many others, are descriptions of incipient madness, evidently drawn from their own

sensations. Metastasio says, "when I apply with attention, the nerves of my sensorium are put in a violent tumult, and I grow as red as a drunkard." Pascal often sprang from his chair while composing his most celebrated works, seeing a fiery gulf opening by his side. Descartes was often followed by an invisible person, calling on him to pursue the search of truth. Benvenuto Cellini, saw a resplendent light hovering over his own shadow, and Raphael says, alluding to his celebrated picture—the transfiguration—that when engaged upon it he might be looked upon as an enthusiastic madman: that he forgot himself, and fancied he saw the whole action passing before his eyes. Cowper was decidedly insane, even at the time he wrote his most celebrated poems. All this time and for many years, he doubted the identity of his most intimate friend, the Rev. Mr. Newton. Cruden, the author of the concordance of the bible, was insane more than thirty years, during which time he prepared and published that learned and valuable work. Robert Hall might be mentioned, if not as an instance of the improvement of the mental powers by insanity, certainly as one in whom this disease did not injure them.

Numerous cases are on record in which great difficulty has been experienced by physicians and jurists in establishing insanity; so well and correctly did the subjects of it think and talk on almost all subjects, while in reference to one or two topics they were quite deranged.

Dr. M——, an incurable inmate of the N. Y. State Lunatic Asylum, is quite an intelligent correspondent of the Utica papers. He converses freely and sensibly on most subjects. The following "prayer for the insane poor," he wrote and presented me:

"O God, who declarest thy power! in commiseration mercifully regard me and restore me to saneness and composure amidst all my perplexities. To usefulness, respectability, individual and social happiness. To an ability to acquire and control the means for my respectable and honorable maintenance. To the rational enjoyment of the privileges, and to the faithful performances of the duties of an American citizen."

I heard him declaim "The Soldier's Dream" in a manner that would have done credit to the soundest mind and the

best student of elocution. In fact, no one, from all I saw, would have suspected him of insanity.

Almost every hospital for the insane has its preachers, its politicians, its sages who manifest their wisdom by silence, its philosophers and its poets. One of the best productions from one of the latter class, and they are numerous, is the following from a patient in the "Retreat," near York, in England. He, it seems, fancied himself destitute of heart, liver, brain, and everything else.

"A miracle, my friends come view !

A man, (admit his own words true)

Who lives without a soul ;

No liver, lungs, nor heart has he ;

Yet sometimes can as cheerful be

As if he had the whole.

His head, (take his own words along)

Now hard as iron, yet ere long

Is soft as any jelly ;

All burnt his sinews and his lungs :

Of his complaints, not fifty tongues

Could find enough to tell ye.

Yet he who paints his likeness here,

Has just as much himself to fear,

He's wrong from top to toe ;

Ah friends, pray help us if you can,

And make us each again a man,

That we from hence may go."

From what has already been said, it is plain that no regular distinctive symptoms can be given of monomania. It is any form of insanity partial in its extent.

Melancholia.—Dr. Elliotson says "there is no real difference between "mania" and "melancholia."

The distinction here tried to be made is to form a class of those cases in which great depression of spirits prevail. But no more appropriate is this, than to make a class for the suicidal, homicidal, loquacious, taciturn, the merry or the voracious; for almost all forms of insanity are liable at times to assume this character.

Dementia is that form of the disease that destroys the mind, or so far affects the brain as to suspend the mental manifestations. It is most common in old cases, where from long continued disease the brain becomes more and more under its influence, until there is a complete want of mind. Although

it occasionally is found in the early stage of the disease, most authors deny the existence of acute dementia. When it does occur, I apprehend it is from a prevalence of disease through the whole brain, to the extent of entirely suspending its appropriate action as organ of the mind. I saw a case last spring in the Pennsylvania Hospital for the Insane, that I supposed to be of this character.

There is little hope of cure in long cases of dementia, especially in those that have gradually assumed this character.

There is another form of insanity that has recently attracted much attention. It is of the utmost importance, not only in a pathological and therapeutical, but also in a medico-legal point of view. It is called *moral insanity*, and is a derangement of the moral sentiments and feelings without an overthrow of the reasoning or perceptive faculties.

Great destructiveness, acquisitiveness, self-esteem, love of approbation, sexual desire, &c., are often found where they may not be said to constitute insanity. But when these propensities become so strong as to entirely control the action of the individual, in spite of his better judgment, (and they often do) while all his moral powers are brought unavailingly to bear against them, he is certainly insane. When an individual feels an irresistible impulse to do any unlawful act contrary to his better judgment, he is deranged; but the case becomes much more manifest when the act runs counter to the known and established laws and feelings of his own nature: as when a parent is impelled to the destruction of his own child, &c.

Such cases require in the jurist and medical witness great care in investigation, and sound and enlightened judgment in decision, lest on the one hand they condemn the irresponsible and consequently innocent, or on the other they let the guilty go free.

Hereditary conformation, education, and the power of habit have much to do in predisposing to this form of insanity.

Numerous instances are on record where the excessive indulgence resulting from hereditary disposition, or vicious education, of one or more of the propensities of our nature, have so strengthened them as that they have acquired the complete control of the whole man; or in other words produced moral insanity.

I believe the day is not far distant when an investigation of

the pathology of insanity will give us a more rational classification of its different forms, founded upon the disease of the brain and the parts affected, instead of the peculiarities of the mental manifestations of that disease.

SYMPTOMS.

When an individual, not laboring under fever of a grade to produce delirium—sees objects that have no real existence—when a marked change comes over his feelings, his desires, his sentiments and his disposition,—when in his attempts to reason, that which was formerly clear and explicit to his mind, becomes confusion and error—when from plain facts he draws wild and erroneous conclusions—when he fancies himself or the objects around him to be different from what they are—when he supposes he has converse with unseen spirits, with the inhabitants of the other world or with the dead—or when he fancies himself an inhabitant of a far distant country, of the moon, or of eternity—although the wreck of mind may not be established, it is time for him and his friends to suspect that he is insane; and often by a timely resort to the rules of treatment hereafter laid down, the dread calamity may be averted.

It is important to detect the earliest symptoms of insanity, for it is in this stage that our remedies are the most potent and the cure most speedy. Often man may prevent insanity by understanding the tendency of his mind to the disease. And even where it is established to some extent, he often has the power to control it. The remarkable case of Nicolai of Berlin, who saw for months together vast numbers of human forms around him, and yet so far controlled his mind as to remain entirely sane, is a case strictly in point.

It cannot be expected that unaided, the patient can control his insanity where the derangement is general, yet here as we shall hereafter see, much controlling influence may be exerted by moral treatment.

Insanity sometimes begins suddenly. This generally occurs in puerperal cases in which it mostly assumes a violent form, corresponding with the activity of the disease that produces or constitutes it. In other cases it comes on gradually, being first manifested by oddity of manners, strange opinions, or absurd fancies. These frequently are but an exaggeration of notions previously entertained.

A steam doctor in Ohio, of some notoriety, who had long indulged the most illiberal opinions in reference to the regular practice of medicine, after laboring under an affection of the lungs until much reduced, consulted a physician of eminence in the town where he resided. Soon after he supposed himself poisoned. He labored under constant apprehensions lest some of the physicians should slip some of their poisonous drugs into his food or drinks, although no one of the faculty went near him. He was removed to the Ohio Lunatic Asylum, where it was with great difficulty that Dr. Awt could so far gain his confidence as that he was willing to submit to the course of treatment by which, soon after, his mind was restored.

Physical signs.—As has been seen, there are various forms of disease attendant upon insanity, either acting as causes or consequent upon it. Of the first, sufficient has been said under the proper head. The latter we find to be various, and by no means constant.

In some cases there will be a frequent, and in others a slow pulse, while sometimes there seems to be but little disturbance of the circulation. As a general rule the pulse is not to be relied upon as affording any index to the pathology or treatment of the disease. Dr. Cox says, "whenever it exhibits very considerable changes without any obvious causes or corresponding symptoms, sudden death frequently closes the scene."

When insanity occurs in connexion with other diseases, they frequently modify the circulation, when its changes are pathognomonic of the attendant disease, and not of the insanity. Dr. Rush placed great stress upon the pulse in mental derangement. His theory of the disease was, that it depended upon vascular excitement; the practice deduced from which, was copious bleeding—an error in theory that to some extent modifies most prejudicially the treatment of the disease in private practice to the present day.

The head is frequently too hot—the face flushed and the eyes injected. It is sometimes the case, that while the pulse at the wrist is feeble, the carotids throb forcibly—denoting an unnatural determination of blood to the head.

The secretions are often perverted, diminished or increased. The tongue is generally coated and the saliva changed. The

appetite is exceedingly variable. Sometimes the inordinate voracity of the patient is the first index of disease. In other cases there is not only a loss of appetite, but a great aversion of both food and drink. In many cases the only means of introducing food enough into the stomach to prevent death from starvation, is that adopted in several of the hospitals. The food is prepared in a liquid form—the tube of the stomach pump passed down the throat, and by means of the pump the food is forced down.

The external senses are often diseased—vision is impaired, perverted, or the eyes become extremely sensitive to the influence of light. The ears are affected, and the patient hears strange sounds—a roaring sensation in the ears, persons talking, &c. The taste is often perverted, and the olfactories suffer from disagreeable odors. The sense of feeling, too, undergoes various changes.

In some cases there is much stupor, but more, generally, there is much restlessness; and in such, frequently, the loss of sleep hastens on the disease. Patients often go days and even weeks, without sleep; the disease of the brain acting as a substitute for that restoration of energy brought to the weary by “balmy sleep.”

PATHOLOGY.

It will not be necessary to enter into an argument to prove that the brain is the organ through which the mind manifests itself—the instrument through which its operations are performed. This is admitted. Nor will it be necessary after this admission, to adduce arguments to prove that a diseased condition of the brain will give rise to imperfect and deranged actions of the mind, any more than it would to prove that an injury of the eye would impair vision.

Then, if disease of the brain will derange the mind, we are authorized to look for it whenever the mind is deranged. The disease in insanity, as has already been said, is physical, and any other supposition would lead to the position that the mind is subject to decay, and would rob it of its noblest attribute, immortality.

When the functions of any organ are deranged, we look to the organ itself for the cause; when hearing is impaired we refer to the ear, and when sight is interrupted we look to the eye. Whether the disease be primarily in the organ itself, or

is produced secondarily by morbid actions in other parts of the system, we refer to the organ whose functions are deranged for the proximate cause. When a secretion is arrested, perverted, or becomes too profuse, we say a morbid condition of the gland by which it is secreted is the cause. And so with reference to the manifestations of mind; when we find them deranged we infer a morbid condition of the brain. *All mental derangements are but symptoms of disease in the brain*, which may be either primarily affected or diseased by the derangement of some other part of the system with which it sympathises or is in close dependence. By a reference to the part the brain acts in the animal economy—being the sensorium commune,—we see how close are its dependencies, and how extensive its sympathies. From it emanates the nervous influence which gives vitality to all parts of the system. To it flows through the innumerable bonds of connection formed by the nervous system every impression received, and consequently every morbid action in the system must have a greater or less influence over it, while every morbid impression upon it must exert an influence over the whole system. Thus, when the stomach fails to perform its function, nutrition is suspended, and the necessary support is withheld from the brain in common with other parts. That supply of healthy blood so necessary to its normal action, and which is one of its natural stimulants is not furnished, and imperfect action is the consequence. Again, the sympathy between the brain and stomach, through the pneumogastric or par-vagus nerve, is most important. How speedily an injury of the brain affects the stomach, and how certainly disease of the stomach affects the brain. With the heart, the lungs, and in fact with all parts of the system, these relations are more or less closely sustained. But it is only when the brain itself suffers a lesion, that we have insanity. It may be considered a disease of the nervous system; and very properly has Dr. Good placed it at the head of his class neurotica.

As the structural changes that takes place in the brain and its membranes in many cases, are by no means constant or regular, we are led to conclude that insanity is produced most generally by irritation; a term, which some authors of eminence, make synonymous with inflammation, in which definition I do not concur. That inflammation, properly so called,

will derange the mind, when seated in the brain, is a fact that no one will deny; for the delirium produced by phrenitis and arachnitis are positive evidences of it. The form of mental derangement generally understood by the term insanity, is slow in its action, in many cases entirely free from producing any inflammatory excitement in the system, and is often attended by great depression of the energies and action of the vascular system. Its periodical form, too, would do much towards establishing irritation as the peculiar form of morbid action. The character of many of the causes may also have an influence in directing our investigations of the pathology of insanity. When we remember that many of them act gradually in producing the morbid condition—that the inception of the disease is attended in many instances simply by functional derangements, and that many patients labor under the disease for twenty and thirty years and even longer, whose brain after death presents in almost all respects a healthy appearance, we can but conclude that this disease is one of irritation.

The manner in which the disease is produced, varies much in different cases, and from different causes. Sometimes the irritation is reflected, as when the close student, by too great exertion of the brain, robs his stomach of the nervous energy necessary for healthy digestion, becomes dyspeptic, by continuing the mental application involves the brain still more and more in disease, the disordered stomach adds its influence in increasing the morbid action. He first becomes melancholic and finally insane. Dyspeptics are generally hypochondriac, and often labor, under a condition of the brain that closely approximates insanity. The insane very often labor under derangements of the stomach and bowels, and many of them are dyspeptic. Not only does the dyspepsia often aid in the production of insanity, but disease of the brain produces dyspepsia. Many other diseases have this kind of reciprocal action with insanity, which in its treatment should always be borne in mind.

That different parts of the nervous system perform different functions, is established beyond a doubt. There is one class appropriated to the function of muscular motion, part of which only, is under the influence of the will. Another class endowed with sensation, which is subdivided into as many parts

as there are external senses, and each of these nerves perform their appropriate function only. They originate from separate portions of the brain, which seems to indicate that it is a plurality of organs. We also find from various observations made upon the brain in health and disease, that its different parts perform different offices. That although a portion of one hemisphere may be removed without impairing any of the faculties of the mind, no case is on record where corresponding portions of the hemispheres, have been diseased, without destroying or deranging one or more of those faculties. From these facts we are justifiable in the conclusion, that different portions of the brain being diseased, will produce different forms of insanity. Although cases occur in which all the faculties of the mind are equally deranged, this is by no means a general circumstance. Mostly some one, two or three of the faculties are particularly affected, while the rest seem to be but little disturbed. When this is the case we infer that the part of the brain appropriated to the use of those faculties of the mind, is the seat of disease. And this is corroborated by observations on the treatment of insanity. When on a particular subject a patient is insane, the best moral treatment is to divert the mind from that subject, and allow the part of the brain through which it acts, repose. If the position taken was not true, any form of mental action would be injurious while the brain was diseased, but experience abundantly establishes the propriety of mental employment, provided, it be directed out of the channel of the disease.

That a pathology of insanity founded upon the parts of the brain affected, will ultimately be permanently established, I have no doubt. And when it is, both the moral treatment of the disease, and the prophylactic means used, will be to a great extent governed by it.

Post Mortem dissections occasionally discover but little evidence of disease in insanity, from which some have been ready to doubt the seat of disease being in the brain. But are not dyspepsia and asthma located in the stomach and the lungs? And how often is it the case that the morbid appearances of either of these organs after death from these diseases, give no evidence of their having existed. However, when insanity has continued long, there is evidence of disease generally in the brain and its membranes.

In many cases of insanity, connected with paralysis, there are signs of inflammation in the brain.

In recent cases there is often no morbid appearance after death, but changes in the consistence and appearance of both the cortical and medullary matter of the brain, and thickening and adhesions of its membranes are common in those of long standing.

The heart and lungs are frequently diseased. Hypertrophy of the heart, and phthisical degenerations of the lungs, are said to be quite common.

Gastro-enteritis has been found to have existed in many cases. But in reference to all these, we should expect great derangements in almost all parts of the body, from the diseased influence the brain in insanity must exert on the system. And no doubt many cases die from insanity by the establishment of disease in different parts of the system, through this morbid influence.

CURABILITY OF INSANITY.

The reports of the different hospitals and asylums for the treatment of insanity, abundantly establish the curability of the disease. From seventy-five to ninety per cent, of the recent cases admitted are cured by most of them. And their physicians all concur in the opinion, that when taken in its early stages, it is as curable as a fever or pleurisy.

Although many disadvantages attend its treatment in private practice, a judicious resort to the means within our control, will enable us to cure quite a majority of the recent cases, even here.

TREATMENT OF INSANITY.

I propose to confine my remarks under this head principally to what will be appropriate in private practice. It is properly divided into the *moral* and the *physical* treatment.

Moral Treatment.—As soon as symptoms of insanity are discovered, the patient should be placed under treatment, which in many respects must be varied to suit the peculiarities of the case. But he should always as far as is practicable, be removed from under the influence of the exciting cause. When in its incipient stage, the proper remedies to correct the physical derangements present, and a removal from the influence of the exciting cause, will often prevent the full development of the disease.

If the cause be a moral one, any means of directing the mind into another channel of thought, will be appropriate as a preventative, or a means of averting the full development of disease.

The most effectual means of doing this will be a change of pursuit, removal from home, traveling, &c. Even when the disease is fully established this will be necessary, and should be attended to without delay. It may be laid down as one of the first and most important points in the moral treatment of insanity, to remove the patient from amongst his friends, and particularly from his own family if he have one. This is necessary for various reasons. *First*, that the associations that have been formed in the development of the disease, which may have had an influence in producing it, may be broken up. *Secondly*, because these associations, if not acting as a cause, have become so intimately connected with the diseased train of thought, that they constitute a part of it. *Thirdly*, because in a change of scene new objects present to the mind and institute new channels of thought, as well as tend to interest the mind. *Fourthly*, because strangers have much more influence in governing the insane, than those with whom they have been accustomed to associate on terms of intimacy and equality. They often are highly incensed at authority exercised over them by those from whom they have been accustomed to kindness, which from strangers they would receive kindly; and this is one of the reasons why the insane so universally regard those who have previously been their best friends, in the light of enemies.

Kindness.—It is of the utmost importance that the insane be treated by all, with the utmost kindness. In selecting an attendant to take charge of a patient, we should be particularly careful to obtain one who can sufficiently appreciate the condition of his patient, not to become irritated at his words or conduct, however insolent they may be, who would understand and appreciate the fact, that *the laws of humanity and of kindness are the only rules that should be applied for the government of the insane.* However much the reason may be dethroned, there are few, very few, who cannot be made to feel those heaven born influences that flow from the benevolent heart. He should be one, too, who while he would take care for the physical comforts of his charge, could also direct

his mind from those "carking cares," wild fancies and hallucinations, that else would form his theme of converse and of thought by day and by night.

Employment.—Let something be devised to keep the patient employed; and if he is able, and has been used to labor with his hands, this will be the best means. While the hands are employed busily the attention will be directed to the work; and although much effort may be necessary to effect an application to it, most persons can eventually be interested, which will abundantly reward for the pains by engaging the attention and invigorating the system.

The cultivation of a garden, labor in the field, or some mechanical occupation for the male—sewing, knitting, spinning, washing, ironing, scrubbing, and the like domestic labors for the female, will be entirely appropriate, where the ability and inclination will allow. No harsh measures should be used to induce the insane to work, or for any other purpose.

When ability or inclination show the impropriety of this kind of employment, many amusements may be resorted to, and even with those who labor they should be introduced for recreation.

The insane are often fond of reading, which is both an interesting and useful amusement. They often take great interest in histories, works of fiction, and in reading newspapers. Where there is an inclination of this kind it should always be encouraged; however, with a care not to place any work in their hands that treats upon any of the subjects upon which they are deranged. In fact, in selecting employment and amusements for them, care should be had in every case to see that they divert the mind from those subjects upon which they generally dwell.

Schools in hospitals are becoming quite popular as a means of entertainment and instruction. I saw a most interesting exhibition at the N. Y. State Lunatic Asylum last spring, in which the insane scholars deported themselves with great propriety, read many pieces of their own composition, recited lessons and gave some fine specimens of declamation. Dr. Brigham assured me, that many of them improved rapidly. Some philanthropic individuals in Europe are doing wonders in developing the minds of idiots by educating them. It is

said they succeed in teaching many, rules of behavior, who appeared previously almost entirely destitute of mind.

By giving the insane lessons, they are entertained, and the mind kept steady, which favors recovery. Geography, history, language, reading and writing, form good studies for the insane. Drawing and painting too, are interesting to those who have a taste for them.

An intelligent lady, a few years ago, having long been a professed christian, was so rejoiced at the conversion of her husband, who had been an avowed infidel, that she went all lengths with him in devotions and leading a life of self-denial. The subject of religion was their constant theme. They had family prayer three times a day, and fasted twice a week; while she at the same time was suckling a young child. Her health began to decline, she complained of general debility. A loss of appetite and a torpid condition of the liver soon followed. For a time her devotions became more fervent, her religious enjoyment scarcely knew any bounds, and the whole religious community rejoiced in her spiritual prosperity.

But her physical system was too much worn down by fasting, suckling and application, to bear the mental excitement with impunity. She lost the evidence of her acceptance with God, and her enjoyment was changed to despair. Her countenance manifested it in every feature; and her supplications for mercy, by their fervency and earnestness, corroborated the expression. Her sipsfulness in having professed a change of heart, when (as she said) she had not, and all the fancies and real errors of her life were brought up in fearful array before those she addressed. She would earnestly solicit advice of her friends, and often inquire whether they thought it possible for her to receive pardon. Her husband reasoned with and prayed for her, and her pious friends and neighbours held prayer meetings at the house for her especial benefit; but little thinking, that, in calling for Divine aid, they were violating one of the established laws of nature, which man may not disregard with impunity. Of course, under this she became worse and worse. She even thought of self-destruction, and had made preparations for the awful act.

When I took charge of the case, it was with the utmost difficulty that I could for a moment divert her mind from the subject of religion, and from brooding over her deplorable condition.

which fills the whole system with artificial energy, is subdued, in spite of tonics and stimulants the patient sinks to rise no more.

That there are cases in which general bleeding would be proper on account of complications, as when connected with inflammation, is certainly true; but great care must be had not to mistake the excitement simply consequent upon insanity, for a symptom of inflammation.

Local bleeding, by cupping and leeching, is a valuable means of diminishing the determination of blood to the head, and of reducing the action there, but must be regarded as a means of secondary importance.

Cold applications to the head.—These either in the form of the douche, or of ice, are valuable remedies. Many cases have been reported as cured by pouring cold water on the head alone; but it is when taken in connection with other remedies, and during excitement, that it is most valuable.

The douche may be given conveniently by filling a coffee-pot with cold water, and allowing the stream poured out of the spout to fall some distance on the head. This frequently calms the excitement, checks the flow of blood to the head, and allows the patient a period of repose. By repeating as the excitement returns, in periodical cases, much influence may be exerted in keeping the patient calm, and of course in relieving the disease.

Baths.—Amongst the means of removing disease from the skin, and of diffusing the circulation so as to equalize it,—and many if not most cases require remedies of this description—bathing will be found one of the most efficient. While I shall not stop to discuss the truth or error of the doctrines of Priznitz, I am willing to award to the bath great efficacy in the cure of diseases.

Warm and cold baths are used in all well regulated hospitals for the insane, and of course with decidedly beneficial effects, or they would long since have been discontinued.

Where there is coldness of the extremities, and determination to the head, the warm bath given, while cold is applied to the head, has a most salutary effect and should often be repeated. The cold bath in many cases acts as an excellent tonic, invigorating the system and should often be used.

Blisters.—These, may, in some cases, be valuable in two

ways: by establishing a drain from the system in cases arising from the healing of issues or the sudden arrest of perspiration; and by acting as a counter irritant. However, in most cases, there is danger of their increasing the irritability of the system and aggravating the disease.

Setons and Issues, may serve as counter-irritants, and are more appropriate in chronic cases than blisters. They are not in as high repute now as formerly.

Emetics are not in high repute in the treatment of insanity *per se*, but often are appropriate in the diseases that attend it, which should always receive prompt attention. Those producing the least prostration and general irritability, should always be preferred. *Ipecacuanha* is one of the best. And I have no doubt the *sanguinaria canadensis*, on account of its promptitude of action and invigorating influence on the stomach, would be found valuable.

Nauseants may serve to check the general excitement; but the distress they produce and the irritability attendant upon their use, are sufficient reasons in most cases for laying them aside.

Cathartics.—There are many cases of insanity attended with derangements of the bowels, in which this class of remedies is valuable. But in reference to the curative treatment of insanity itself, there is not much reliance to be placed in purging. In its effect, it is too closely allied to the other depletory measures to which we have referred, to be generally advantageous. Where there is constipation, much may be done towards remedying it, by attention to diet, and the use of gentle laxatives. Where there is a torpid condition of the liver, *Blue Pills*, *Cook's Pills*, and such preparations as the peculiarities of the case may indicate, should be resorted to. Dr. Woodward highly recommends the use of *guaiacum*, either in the form of tincture, or the powdered gum, which latter he prefers.

Diaphoretics.—The skin is very prone to unhealthy action in insanity; in the early stages, being often hot and dry; to remedy which, sudorifics are valuable.

There is no article of this class that has higher claims to our confidence, than the *Dover's Powders*, (or what is but a modification of it, a combination of morphine and *ipecacuanha*.) used with carbonate of ammonia. However, the various

preparations used to promote action of the skin, should be suited to the particular indications of the case. Where there is much excitement, the preparations of antimony may be admissible; where there is debility and want of tone in the stomach, the chamomile flowers, (*anthemis nobilis*) boneset, (*eu-patorium*) pleurisy root, (*asclepias tuberosum*) guaiacum and remedies of this class may be appropriately resorted to.

Narcotics.—Dr. Woodward says, “by far the most useful remedies in active mania after the system is prepared for their use are narcotics.”

The pathology of the disease being, as I have shown, that of irritation, we would, *a priori*, infer that this was the most appropriate class of remedies for its cure; and experience confirms the doctrines in pathology, by showing the fitness and success of the treatment. Often large doses of these remedies are required before the system can be brought under their influence; and it is scarcely necessary to say, that unless they are used to this extent, not only the object of their use will not be attained, but injury will be done to the patient by their administration.

Morphine stands at the head of this class of remedies. It should be given in solution, and the dose regularly increased until it produces tranquility of the system, and secures repose. In those cases in which sleeplessness is one of the most troublesome symptoms, and they are numerous, morphine and other preparations of this class are invaluable. When the effects of the remedy are secured, they can generally be maintained without much trouble, by continuing the use of the medicine, and frequently in the course of a few weeks the dose may be much reduced, and finally suspended, on account of the complete recovery of the patient.

The two ends of calming the system, and promoting the action of the skin, may be attained frequently by the prescription given as a diaphoretic. But the combination should only be used while the skin demands it; as the anodyne should be continued, so that the patient shall be continually under its influence. The amount of morphine necessary to be used cannot be given. In some cases it will seem almost incredible to tell the quantity necessary to produce its effect. It is scarcely necessary to say that care must be had in the use of

this remedy, not to give it when there are any strong counter-indicating symptoms.

Datura Stramonium, has had considerable reputation with some practitioners. In epileptic cases it is said to answer a valuable end, where the system is kept so far under its influence as that the pupils of the eyes are affected by it. It may be given in tincture of the seed or in the extract.

Cicuta.—This remedy enjoys some reputation, and is used in the hospitals in combination with different preparations of iron, it is said with great advantage, and especially in the older cases, and those attended with neuralgic affections. It must be used in large doses to do any good; for unless it produces the "heavy dull pain over the eyes," and vertigo, which characterizes its effects, it will be useless to give it.

Hyosciamus.—From some recent researches in reference to the effects of this drug, which go to prove that its influence over the circulation in the brain, is different and opposite to that of opium, the former diminishing the flow of blood to the head, we would expect it to be of great service in many cases of insanity. Combining the anodyne with the influence of diminishing the circulation in the brain, we should expect that in almost all cases where the preparations of opium are forbidden, this would be appropriate. Although not so potent as morphine, in many cases it will secure tranquility of the nervous system and sleep.

Strychnia.—This is the great remedy for paralysis, and as many cases of insanity are attended by it, we would infer its applicability. It is a powerful remedy, and must be used with care. The dose should be gradually increased from what is ordinarily given, until it produces its peculiar effect—a sense of constriction in the stomach.

Gamphor, with opium, especially, has great influence in controlling the venereal appetite, and will be found particularly applicable in cases attended with priapism, where there is an indulgence in "the secret vice," and in nymphomania.

Tonics.—These are valuable to restore the system in cases worn down by excitement, and where there is a debilitated state of the digestive organs. The preparations of iron, bark, columbo, quassia, &c., in combination with aromatics, in the form of tincture, are amongst the most valuable.

Quinine.—This great febrifuge, the effects of which are now

undergoing an investigation, can scarcely be passed over in the treatment of any disease in the great valley of the west. Our diseases are so often modified by the prevalent malarious influence of the country, for the cure of which quinine stands pre-eminent,—almost bearing the character of an entire specific—that it becomes us in the treatment of insanity, as in other diseases, to detect those symptoms arising from this influence and meet them. And whether quinine is a tonic or not, a stimulant or a sedative, it matters but little, if where we find traces of miasmatic disease it will remove them.

ARTICLE II.

Case of Tubercular Deposite in the Cerebellum. Autopsical Examination. By P. A. ALLAIRE, M. D., of Aurora, Kane Co., Ill.

S. P., a young woman aged 19, of previous good health, came under my care in February last with the following symptoms: constant and severe headache, nausea, frequent vomiting, with tenderness of epigastrium. The tongue was clean, pulse about 100, moderately full and firm; all other functions well performed. She was bled from the arm, had fomentations to the tender region, took morphine, and had the bowels moved by injection. These remedies gave much relief, and in two or three days I left her apparently convalescing from the attack.

March 9th.—Saw S. P. again, and found her suffering as in February. The head ache was now most intense, posteriorly; every attempt to rise in bed caused vomiting; the intellect was clear. No cause could be given for her condition, great care having been observed in diet, exercise, &c. She was treated as before, except that no bleeding was had, the neck being blistered instead; and ice-cold water constantly applied, with counter-irritation to the extremities. Considerable relief was again experienced, but the patient did not recruit her strength. The stomach remained irritable, vomiting of bilious fluid being frequent, the head ache was also at times intense in spite of remedies, while the pulse became quiet and natural. She remained much in this condition during the months of April and May. In the early part of June, a new

train of symptoms became developed,—(the gastric difficulty and headache having greatly subsided, while food could be taken and digested in considerable quantities,)—temporary loss of vision, followed soon by temporary loss of hearing and speech, during these attacks, which lasted from 3 to 6 hours. The pupil was exceedingly dilated, but no other part seemed paralysed. Muscular motion and sensation remained usually good. These temporary attacks of partial paralysis continued to the termination of the case, occurring from two to three times per week at first, and gradually becoming more frequent, one or even two a day being common during the last few days. The treatment was not active during this period, but rather palliative. The manipulations of Animal Magnetism seemed very much to soothe a peculiar restlessness observed during her loss of speech, hearing, and sight; it also relieved, (as she called it) “a strange feeling of stiffness and pain” in the muscles at the back of the neck. The menstrual function continued throughout, with some diminution as to quantity, and the mental faculties seemed clear when able to speak. She sank on the 13th of July, apparently from exhaustion, without coma or convulsions.

Examination 12 hours after death. By DR. EASTMAN.—The contents of the thoracic and abdominal cavities were carefully examined, but no trace of disease was found, except some slight streaks of congestion in the mucous membrane of the stomach. The skull-cap was then removed. The membranes and cerebrum were healthy throughout. About four ounces of effusion were found in the ventricles. The right lobe of the cerebellum was natural, but in the left lobe near its centre, was found a tumor $1\frac{1}{2}$ inches in length, $4\frac{1}{4}$ inches in greatest circumference, and weighing five drachms. When cut into, it presented much the appearance of solid tubercle, but rather firmer, except in its centre, where it was nearly soft. The tumor was not enclosed in a cyst, but seemed in immediate contact with a slightly softened layer of cerebral substance. No vessels were found going to it, nor did it seem to have any real connexion with surrounding parts, but could be turned out of its cavity as a pea-nut out of its shell. The origins of the nerves looked well, with the exception of those of the optic, which were slightly wasted.

The point most worthy of note in the above detail, seems

to be the marked sympathetic affection which existed in the stomach and liver, particularly in the stomach, during the first three or four months of the disease. This was so great as to call at first a large share of attention and treatment to a part in which existed no real change, and which in fact maintained its integrity to the last. On this account the case seems to show the importance of a more correct knowledge of the various sympathetic affections than has yet been attained, particularly as they throw so much light, when understood, on the etiology of diseases, their seat, and the organ to which our therapeutic means should be directed.

July 18, 1846.

ARTICLE III.

Operation on the Closure of the External Orifice of the Vaginal Canal. By ALFRED E. AMES, M. D., Roscoe, Illinois.

I was called, May 6, 1846, to see a female child, æt. 93 days, who had a perfect closure of the vaginal canal, at the roots of the labia majora and minora, below the meatus urinarius.

On inquiry, the mother informed me that she had just noticed the closure, said the child had always been well, and that there had been no inflammation about the genital organs since the child was born. The body of the meatus urinarius was rather more prominent than natural; no difficulty in voiding urine.

To divide the membrane, we had the labia majora and minora separated, then with the sharp-pointed bistoury made an incision into the membrane closing the external orifice of the vaginal canal, close to the body of the meatus urinarius, with the back of the bistoury towards the meatus. On introducing a silver probe into the incision made, we became satisfied that the vaginal canal was normal, and that the membrane was about two lines in thickness. Then we introduced the directory into the incision made in the membrane, carried it down and backward as far as the fourchette, then divided the membrane on the directory with the probe pointed bistoury. Very little hemorrhage followed the operation. Be-

between the cut surfaces we placed lint moistened with sweet oil, and ordered it to be changed twice in 24 hours.

May 12th.—The parts presented a healthy and normal condition.

PART II.—REVIEW.

ARTICLE IV.

Fevers. Their Diagnosis, Pathology and Treatment. Prepared and edited, with large additions, from the essay on Fever, in Tweedie's Library of Practical Medicine, by MEREDITH CLYMER, M. D., Prof. of the Principles and Practice of Medicine, in the Franklin Med. College, Philadelphia, etc. etc. Philadelphia: Lea & Blanchard. 1846. pp. 604. 8 vo.

Dr. Clymer has added to these essays an entire chapter on Typhoid Fever, and other valuable additions, amounting, as he informs us in the preface, to about one-half the volume; and which relate principally to the fevers of the country.

There are thirteen chapters, which comprise, The General Doctrines of Fever, Continued Fever, and Hectic Fever, by Dr. Christison. Typhoid Fever, by Dr. Clymer. Plague, Yellow, Intermittent and Remittent Fevers, by Dr. Shaper. Infantile Gastric Remittent and Puerperal Fevers, by Dr. Locock. Small Pox, by Dr. Gregory, and Measles and Scarlet Fever, by Dr. George Burrows.

The subject of Fevers being at this period one of much interest to every practitioner, we shall transfer to our pages some of Dr. Clymer's and the associated writers' views which are applicable to the fevers of the season.

The following extract, quoted by the editor from Professor Alison, points to the true cause and pathology of congestive fever, and through them, to the proper treatment.

"Even the peculiarities of that form of fever which has been described under the name of *Congestive*, are not to be explained by the mere circumstance of internal congestion, the existence of which, in the vessels, and especially in the veins of internal parts, in these circumstances, is admitted. For although congestion or stagnation of blood within the cranium may be held to be a sufficient cause of stupor, yet we are so far from regarding congestion in the great veins leading to the heart as a sufficient cause for deficient action there, and consequent feeble pulse and cold skin, that we have already stated the accumulation of blood in the great veins to be apparently the chief cause of the *increased* action of the heart, or the *reaction*, in the more usual form of fever. In the cases, therefore, where the

congestion in the great veins fails to excite this reaction in the heart, some peculiar cause must have operated to prevent the heart from being usually excited, by the application of the unusual quantity of its natural stimulus; i. e., the circumstance of unusually great and permanent congestion in the great veins, in the commencement of fever, is in all probability the effect, not the cause, of a peculiar sedative influence affecting the vascular system in these cases; such an influence naturally leading to accumulation of blood in the great veins, for the same reason that determines the accumulation there after death.

"That congestion of blood in the great veins is not *per se* adequate to account for the phenomena of any form of fever, appears distinctly from the fact, that no form of fever follows the great congestion there in cases of suspended animation in syncope, or from extreme cold, or submersion in water."

Dr. Clymer has chosen that classification, which every physician in his practice adopts despite all systems of Nosology.

"The simplest arrangement, and perhaps the best for practical purposes, is that founded on the peculiar phenomena which are constantly presented by the different forms of fever, constituting the types. In one variety, we have the febrile phenomena interrupted absolutely or incompletely at certain periods; whilst in another, the train of phenomena proceeds in an uninterrupted series; and a third is accompanied with a peculiar and characteristic eruption. The order that we shall observe, therefore, will be:

I. CONTINUED FEVERS.

II. PERIODICAL FEVERS.

III. EXANTHEMATOUS OR ERUPTIVE FEVERS."

He has given us a brief practical description of Ephemeral Fever, which may perhaps account to the minds of some for fevers "broken up" after the first exacerbation. And which until reminded of the existence of such a form, they have considered as Remittents.

"*Diagnosis.*—It is often extremely difficult to decide, at the outset of an attack, whether it is a case of ephemeral, periodic, or continued fever. The absence or presence of the causes just enumerated, may assist our inquiry. Whilst the non-occurrence or insignificance of the initial chill, and the continuation of the fever beyond six or eight hours will often enable one to distinguish it from intermittent fever; the amount of vascular excitement, the slight depression of the nervous powers, and the very transient duration of the premonitory

symptoms will serve to distinguish it from the more serious varieties of fever."

In the chapter on Continued Fever, Synocha, Synochus and Typhus are treated of. The last will be read with interest in many of the more northern portions of our section of country, by those who think with Dr. Clymer that Typhus and Typhoid Fever are not essentially different.

He gives a table of the maximum frequency of the pulse in 181 cases of Eruptive Typhus, in which the average maximum of 90 cases in the male is 107.5, and in the greatest number of instances (20) is at 96. The average in 91 cases in the female is 114.1, and in the greatest number of instances (23) is at 108. The average of male and female is 110.8.

We insert Dr. Christison's account of the petechiæ in Typhus, not only because it is valuable and interesting in itself, but also that there have been seen in some portions of the country cases of a Remittent Type, in which petechiæ of the 2d variety made their appearance. It has not been observed that Typhoid symptoms were developed in these cases which received appropriate treatment.

"Three kinds of eruptions have often been comprised under the generic term petechiæ:—1. One, which is exceedingly rare, but which is occasionally remarked in the advanced stage of bad synochus or typhus for a short time before death, consists of small, pale brown, lenticular spots, without any elevation or roughness of the skin, and much resembling freckles. 2. Another, which is very common in some epidemics, and especially where the early stage of fever presents the inflammatory character, forms small, dark, reddish-black, roundish, accurately circumscribed, and often closely crowded spots, without elevation of the skin, and much resembling fleabites. Their resemblance to fleabites is such, that on the one hand, the latter are often mistaken for petechiæ; while on the other hand, some physicians will insist that real petechiæ are nothing else but fleabites. The two appearances, however, cannot be mistaken by a careful observer, because the petechial spot does not present the little dark point in the centre, which may be invariably seen in the fleabite, either with the naked eye, or with the help of a common magnifier. Sometimes the petechiæ are few in number, and readily escape notice; in other instances, on the contrary, they are excessively crowded. Their usual seat is upon the breast, shoulders, forearms, and legs; but they may be seen also on all other parts of the body except the face. They generally make their

appearance towards the close of the first or beginning of the second week, and certainly not on a specific day, like the eruptions of the febrile exanthemata, as some have maintained. They are observed to occur chiefly in severe cases, but, from frequent observation in the epidemics of Edinburgh, they do not necessarily indicate danger; on the contrary, the cases in which they appear have proved rarely fatal. The appearance is owing to a thin stratum of extravasation on the surface of the true skin, and appears connected with increased force of the circulating system, being most characteristic where reaction is high. This form of petechial eruption has become rare (1838) for a few years past. 3. The third variety presents more or less numerous spots, of a paler, rather lake-red or rose red tint, irregular in shape, not distinctly circumscribed, but rather diffuse round the edge, with sufficient elevation of the skin to impart a sense of roughness to the finger, when drawn over a part where they are numerous. They present some resemblance to measles; and at times are so like that eruption, that the other symptoms must be looked to for the diagnosis. They present the same variety in number with the dark circumscribed petechiæ; they are usually most abundant over the chest, shoulders, forearms, legs, loins, flanks, and abdomen; and they are not unfrequently found loosely scattered round the loins, flanks, and upper part of the belly, although not visible anywhere else, so that, if not sought for, they may escape notice altogether."

Our limits do not permit us to make extracts from the treatment of Continued Fever, which with the matter added by the editor, will be found very full and practical; but pass to his chapter on Typhoid Fever, which has been written specially for the Middle and Northern States, but which will be equally applicable to some localities in the North West. The authorities referred to are principally American.

In regard to the unsettled question of the identity of Typhus and Typhoid Fevers, the author says:—

"The question of the identity of typhus and typhoid fever has been one of great interest, and respecting which much diversity of sentiment at one time prevailed. Whilst the British physicians held, with great unanimity, the opinion that, though different varieties, they were the same species of fever; the French and American authorities proclaimed their essentially dissimilar nature. For obvious reasons the present work is not suitable for the discussion of this point; and it is our intention merely to state the grounds on which those who contend for the non-identity of the two diseases base their

opinions, and to ascertain how far they are in accordance with the observed facts. The leading features of difference insisted on to prove that the two varieties of fever—typhus and typhoid—are radically distinct, are, 1. The character of the eruption, which in typhoid fever consists of minute lenticular papulæ, disappearing on pressure, and thinly scattered over the abdomen and chest; whilst in typhus the spots 'are more irregular in their shape and size; not elevated above the adjacent skin; partially disappearing on pressure, or not at all; often abundant, or even confluent; in many cases occupying the skin of the extremities as well as that of the entire trunk, and usually of a duller and more dusky colour than in the former disease.' 2. The infrequency of the abdominal symptoms—diarrhœa, and pain and gurgling on pressure in the right iliac region—in typhus, which occurs so constantly in typhoid fever; and, 3. The absence in typhus of the characteristic intestinal lesions—specific alteration of the agminate and isolated follicles—of typhoid fever.

Let us briefly examine how far these asserted differences are sustained by observation, assuming, for the purpose of having some distinctive or pathognomonic trait assigned to typhoid fever, that a diseased condition of the glands of Peyer is necessary to constitute the disease."

To prove the opposite, he refers to Dr. Gaultier de Claubry, Dr. Landouzy, Dr. Felix Jacquot of France, Dr. John P. Mettauer of Virginia, Dr. Thomas Carroll of Cincinnati, his own experience in the Philadelphia Hospital, in Dublin and in London, from which he arrives at the subjoined conclusions.

"From these facts—few, it must be acknowledged, yet positive as far as they go—it is evident, 1. That there is no necessary or constant connection between the kind of eruption, and the abdominal symptoms or lesions;—that the lenticular eruption of the Paris fever, and the maculated, measly eruption of the Irish typhus, may exist conjointly with the diarrhœa, and pain and gurgling in the ileo-cæcal region, and with enlarged or ulcerated patches of Peyer. And 2. That there is no constant relation between the abdominal symptoms—pain, gurgling, and diarrhœa—and the intestinal lesions, since all these symptoms may be absent, not only in individual cases, but in a portion, or in the whole of those attacked in the course of a given epidemic.

"We would inquire whether the group of symptoms known as typhoid fever is perfectly identical at all times and at all places; and further, if the essential characters of typhus are so constant or defined, that it can be taken as a fixed term of comparison? Do not epidemics of typhoid fever differ in their

prominent phenomena, constantly, from sporadic cases, as well as from each other? Are there not a number of accessory circumstances, so subtle as to escape observation, perpetually modifying the influence of causes on the organism? General conclusions should not be drawn from limited observations, or from witnessing any disease so generally prevalent as the one under consideration, in a single district, or even country, and during a limited period of time. And we cannot avoid thinking that those who regard these two forms of fever as distinct and separate *species*, are premature in the expression of an opinion upon a subject in which there are, as yet, wanting many essential elements to warrant a positive judgment."

The chapters on intermittents and remittents contain much that is very interesting, particularly, those portions which give an account of the congestive or pernicious forms, which under various modifications have been so fatal in various parts of our Western country. Dr. Shapter's modification of intermittents generally are the inflammatory, congestive and malignant, we give his description of the latter two.

"The *congestive* form of ague is throughout of adynamic character. The cold stage, which is much protracted, is ushered in by vertigo, deep-seated pain of the head, followed by general trembling rather than rigor. The pulse is small and weak, and not unfrequently faintings and coma add to the alarm. The hot stage struggles on slowly, and, as it were, unwillingly, and then is but imperfectly developed; so that, instead of the usual characters of this stage, there is only a low oppressed condition. The sweating stage is scarcely perceptible. The period of intermission is marked by a pale, worn, contracted countenance, general oppression of the system, constricted and anxious breathing, and small, hard and frequent pulse. The surface of the body is colder than usual, with an incapacity of retaining the surface warmth at the same time that the internal parts feel heated and irritable. This modification of ague, however, seldom occurs, excepting in hot countries, where there is much prevailing marsh exhalation, and then only in those constitutionally nervous and irritable, or whose health has been impaired, and the powers of the system exhausted by previous disease. BOISSEAU states, that it occurs in quotidians, double tertians, tertians, and quartans; it sometimes takes on alternately these different types, whilst at other times they are irregular. (*Pyrétologie Physiologique*.) The duration of the congestive intermittent is but little known: it occasionally succeeds the adynamic continued fever; though, more frequently, it passes into the continued form. It is a peculiarly fatal variety of ague.

The *malignant* form of intermittent fever has been particularly described by ALIBERT. (*Traité des Fièvres Pernicieuses Intermittentes.*) After the second, third, or fourth accession of the febrile paroxysms, the cold stage becomes either shorter and more intense, or else very much prolonged; and in place of the phenomena usually attendant on the hot stage, urgent symptoms, hitherto not observed, show themselves; or those which had already characterized this stage are much exasperated. The sympathetic phenomena which specially characterize the febrile accession become less apparent, or cease almost entirely, while symptoms of local irritation, hitherto unperceived, become developed. Nevertheless, the paroxysm passes off without any very well-pronounced perspiration, but a fetid odour is often exhaled from the body. The patient in part recovers his powers and appetite, and sometimes even does not complain of any particular uneasiness. On the accession of the succeeding paroxysm, however, colliquative hemorrhages and petechiæ often make their appearance; and not unfrequently death ensues at this period, or the disease may be protracted to the third, fourth, or fifth paroxysm.

Such is the outline of what French writers have termed *Fièvres intermittentes pernicieuses*: they usually occur in warm climates in persons of broken-down constitution, as well as when the intermittent fever is complicated with organic."

Dr. Clymer has to this added the annexed description of a similar form of fever which we give entire.

"The subject of the pernicious forms of intermittent fever is one of great interest to the practitioners of an extensive district of this country, where these varieties prevail to a greater or less extent. Those forms to which the term *pernicious* is applied, are, in reality, cases characterized by the greater violence of the accompanying congestions, and where, from the importance of the organs implicated, death is imminent at the third or fourth accession.

"A highly interesting account of an epidemic ague, of the *pernicious* variety, occurring in Persia in 1842, has been given by Dr. CHARLES W. BELL, Physician to the British Mission. It was essentially a quotidian ague, characterized by intense general congestion of the venous system. The disease had several modes of commencement. 'Sometimes it began at once, by the patient becoming suddenly insensible without previous symptoms; at other times it was preceded by formal ague. In many instances, again, the patient would suffer for some time previously from intermitting headache, daily increasing, and great want of sleep; he would then have one attack of ague, and, next day, at the same time, would sink down insensible. This was the form of disease from which

the greatest number of deaths took place, and obtained for the malady its Persian name TAB-I-GHASH. or "fainting fever." During the insensibility the pulse was feeble and the extremities cold. From this state many were never roused; but if they were, the pulse gradually attained power, and the patient came slowly to his senses, complaining of intense headache and a feeling of oppression at the heart; a low kind of fever then came on which was succeeded by very imperfect perspiration, generally confined to the head and chest. Next day, about the same hour, insensibility returned, and each attack continuing longer than the preceding one, the period of death depended upon the strength of the patient or violence of the disease; most frequently, however, death took place on the third attack. As the end approached the secretion of urine ceased, the efforts of the heart at reaction became feebler, the skin felt like that of a corpse, cold and damp, the body became purple and mottled, and the pulse became less perceptible at the wrist: at length the patient was seized with tetanic convulsions and died. In these cases, as often observed in cholera, the feet began to get warm shortly before death, and just as the warmth had spread up the legs and reached the trunk the patient died. Indeed, were other symptoms wanting, I should consider warmth commencing in the feet while the rest of the body was cold, quite sufficient to mark the case as hopeless." In another form, resembling the *algid* of southern countries, there was 'no insensibility, no shivering, little or no perceptible fever, and no perspiration; the primary characteristic symptoms were a fixed pain in the pit of the stomach, extreme tenderness on pressure over the left lobe of the liver and region of the spleen, and extreme tension of the abdominal muscles. One or both of the recti abdominis became hard as a board, continuing for days in a state of constant tension, but without any painful cramps or spasms. Nearly at the same hour each day the patient was observed to become exceedingly anxious and restless, tossing from side to side, sighing and throwing the arms above the head, as in yawning, and the pulse became very small and frequent, and the body damp and cold. By and by, this oppression passed off, the body resumed its natural warmth, and the pulse nearly its natural volume; but this continued quicker than usual, and then to all appearance the patient had very little the matter with him. Each day, however, the oppression of the circulation became greater and the attack continued longer; the pulse now became weaker, and an ice-cold exudation ran off the brow and back of the hands. The struggling of the heart to overcome the load of blood which oppressed it was most painful to listen to,—now almost overcoming the obstruction, the pulse for an instant gaining power, and a partial warmth spreading over the surface; and, again, the force of the heart

succumbing to the disease, and the icy coldness—much colder than death—returning. The craving for iced water was incessant so long as this state lasted. The evacuations meantime were bilious, and the quantity of urine daily diminished, and at length ceased altogether. At length the intermission between the attacks of oppression ceased to occur, the pulse was only perceptible at intervals, and the patient, who up to this time had been perfectly sensible and even able to walk to stool, fell into a state of stupor. The skin now became blue and mottled, and the patient gradually sunk or died in convulsions. Here, also, as I remarked above, some time before death took place, the lower limbs recovered almost their natural warmth. In all the cases I saw of this variety there was much feeling of distension of the stomach and inactivity of the bowels, and sometimes a little vomiting.' The great and rapid enlargement of the spleen is particularly mentioned. In many instances pain in the region of the spleen was felt before the occurrence of any other symptom. The blood was of a dark, dusky, reddish-brown colour, and in general the serum did not separate from the clot. In those affected with the severer forms of the disease, the blood drawn in the cold fit was always grumous, coming at first slowly or in drops, and coagulating as soon as drawn, even at the mouth of the wound; and no separation of the serum took place. During the epidemic the urine of the people in general was much darker colored than at other times, while in those who were seriously affected it was, if secured at all, like porter, and in very small quantity."

The treatment recommended for these forms of intermittents is the one that has been found to be the most uniformly successful, and of which accounts have from time to time been published in the American Journals.

"In the congestive form vigorous practice is urgent. Maillet gives an example in which 40 grs. of the sulphate of quinine and 2 drachms of ether were given in 4 oz. of water at two doses, in the course of an hour; a starch opiate injection, with 60 grs. of the sulphate of quinine and 2 drachms of ether, was ordered at the same time, with sinapisms to the legs and blisters to each thigh. Under this treatment the patient began to recover warmth in a few hours, and the heart to act more forcibly; but the next morning the amendment was so slight, that a sinapism was applied to the whole length of the spinal column, and a clyster with one drachm of sulphate of quinine, and three drachms of ether administered; reaction followed with recovery. Every effort must be made to produce speedy reaction. Stimulants should be freely given—

brandy, ammonia, and particularly capsicum—both by the mouth and rectum; bottles of hot water, and hot bricks are to be applied to the extremities; sinapisms to the trunk and extremities, with turpentine fomentations to the chest and abdomen. As the pulse becomes developed, this active and violent treatment must yield to milder stimulants and diaphoretics. Quinine should be administered freely in large doses, by the stomach and in enemata, and it may also be rapidly introduced into the system through blistered surfaces, produced by the application of ammonia, and by inunction.”

Dr. Clymer has also added to remittent fever an account of two fatal varieties, which will complete the description of the pernicious forms.

“A variety of pernicious remittent, is occasionally met with in our southern states, which may be called the *comatose* form, and which resembles closely the same variety of pernicious intermittent already described. The force of the malarious poison seems in such cases to be expended on the great nervous centres. Commencing with slight shivering, the vascular reaction soon becomes intense; the face is full, and flushed; the pulse firm and full, there is strong pulsation in the larger arteries, especially the carotids; deep stupor soon comes on, with dilated pupils, and slow and often stertorous breathing. As the paroxysm abates the stupor subsides, and during the remission, which generally lasts but for a few hours, no alarming symptom is present. On the return of the paroxysm, which frequently anticipates itself, the same train of symptoms appear with increased severity. And this is repeated until recovery or death occurs. The remissions are sometimes very imperfect, and Dr. Boling relates a case of this kind where the patient lay eight days comatose. When called to him, he says, ‘he presented all the symptoms of apoplexy, and nothing revealed the true nature of the case but a disposition to yawn and stretch every morning, continuing from 7 A. M. to 10 A. M., and a slight abatement in the force, and a diminution of a few beats in the frequency of the pulse, with a temporary disappearance of the stertor. During the remissions, while yawning and stretching, his appearance was exactly that of a person just on the point of awaking from a sound and refreshing sleep, and the bystanders, even those who had seen him several times, could scarcely divest themselves of the impression that this was the case, and were in momentary expectation of seeing him open his eyes and address them. The case terminated favourably, the patient waking up during the hour of remission on the 9th morning, and required but little treatment after.’

A form of remittent fever called *congestive*,—and styled by Dr. Dickson, ‘a hideous and pestilential modification,’—prevails to a great extent over a large portion of our northern and north-western states, and is frequently terribly destructive. It commences often as a common intermittent, and the first paroxysm frequently attracts but little attention. After an interval of variable length, another rigor occurs, which may be prolonged for several hours, until reaction or death takes place. This is remarkable for the extreme coldness and death-like hue of the face and extremities. There is violent gastro-intestinal irritation, with incessant purging and vomiting. The discharges are often mixed with blood, and rarely with bile. Dr. Parry, of Indiana, says that they have ‘the appearance of water, in which a large portion of recently killed beef has been washed.’ There is but slight abdominal tenderness, but a sense of weight, and burning heat in the stomach are complained of. The thirst is intense, and unquenchable. The respiration is peculiar; it is described as consisting of ‘a deep drawn double inspiration (or double sigh,) with one expiration;’ the patient complains that he cannot get his breath. The pulse is small, thready, and frequent, beating from 120 to 140 in a minute; it sometimes becomes imperceptible for several hours before death, though generally, it is to be felt to the last. The body is bathed in a cold, clammy sweat, occasionally limited to the face and neck—the skin being of a livid hue and shriveled. There is usually excessive restlessness, the patient continually tossing about, and endeavouring to get out of bed. In many instances the brain is undisturbed, the intelligence remaining until death. In some cases there is severe cephalalgia and even delirium; and in others coma makes its appearance early in the second paroxysm. If no abatement in these symptoms occurs, death takes place in from twenty-four to sixty hours, the patient expiring in great agony. If, however, the remedies have acted, the restlessness diminishes, the skin dries, the pulse falls and becomes developed, and the body gradually attains its natural temperature. Dr. Wharton of Mississippi, observes that “this is a very slow process, as it often requires from twenty-four to forty-eight hours for the heat to travel from the knees to the extremities of the toes.” Dr. Boling asserts that ‘notwithstanding the small and thready state of the pulse, in this variety of pernicious fever especially, the action of the heart will be found strong, as indicated by the loudness of its sounds, and the force of its impulse.’”

The following remarks by Dr. Shapter, on purgatives, deserve to be remembered, especially in those locations, and there are such, where a majority of the patients suffer from

the complication of gastro-enteritis, in the course of the treatment.

"The disease of the general state of the system is to be obviated by the prompt administration of purgatives, in order to clear the primæ viæ from the morbid secretions found in the stomach and intestines; the reduction of the over excited heart's action by bloodletting, and the use of medicines of a diaphoretic nature. With the exception of some of the French writers, all practitioners agree on the necessity of administering purgatives; at the same time they are to be used with considerable judgment, as much mischief frequently accrues from their abuse. If violent and irritating cathartics are too unsparingly administered, they are very apt to set up an irritation in the mucous lining of the bowels, which is attended by consequences so imminent, as often to be the source of more serious alarm than the effects of the disease itself. There can be no greater mistake in the treatment of remittent fever, than the exhibition of a rapid succession of this class of medicines. They tend rather, by their local irritation, to increase the acrid nature of the secretions. At the same time it is absolutely necessary, especially at the onset of the fever, that effective evacuants should be administered; but those selected for this purpose should be but little irritating or drastic in their operation. The use of purging enemata will be found very useful adjuncts to the employment of purgatives, but they must by no means be solely relied on; and where there is much gastric irritation, and there are but few cases where there is none, a small quantity of the syrup of white poppies should be added, the addition tending very much to allay pain and to soothe the system."

The editor's remarks on the use of emetics, are very judicious, and agree with the opinions of Dr. Shapter on the same subject.

"Emetics are now generally abandoned in the treatment of this form of fever, it being found that they aggravate the gastric distress, which is usually so annoying. If, however, it is found necessary to empty the stomach at the commencement of an attack, the mildest means that will effect the object, should be resorted to."

The mode of using quinine in remittents is a question of much importance. And as there is some difference of opinion on this point, we give Dr. Clymer's views, which we believe will be found a correct guide to its employment.

"With regard to the administration of quinine some difference of opinion prevails. As a general rule, the more decided the remission, the greater its utility; in the inflammatory form, it is generally of little advantage. Where the remissions are well marked, or where there is a tendency to prostration, it is, on the contrary, of the highest value, and should be administered in doses of from five to ten grains, frequently repeated before the anticipated exacerbation."

The treatment for congestive remittent, is, like that for the intermittent type, supported by the authority of many American practitioners.

"The congestive form of remittent fever requires prompt and vigorous treatment. The chief indications are to procure reaction, and to prevent a recurrence of the paroxysm. To effect the first, sinapisms should be applied over the stomach, chest, between the shoulders, and on the extremities. Blisters are recommended by some practitioners as preferable, whilst others advise that they should replace the sinapisms, when these have commenced to excite irritation of the surface. Stimulants must be freely given internally, quinine, camphor, capsicum, &c. The quinine must be given in large doses, (grs. v. to x.) at short intervals; it should be combined with capsicum or camphor, or if there is severe vomiting, the oil of turpentine may be substituted for the camphor. The evidence in favour of large doses of quinine repeatedly given in congestive fever, is ample and convincing. Calomel is generally combined with the above remedies, and is administered during the paroxysm, to the amount of fifteen or twenty grains."

With the matter added by the editor this is probably one of the best works we have on fevers. And especially adapted to the wants of the American physician.

H. S. H.

PART III.—BIBLIOGRAPHICAL NOTICES.

ARTICLE V.

The United States Dissector, or Lessons in Practical Anatomy. By WM. E. HORNER, M. D., Prof. of Anatomy in the University of Pennsylvania. Fourth addition, with numerous illustrations. Edited by HENRY H. SMITH, M. D., Fellow of the College of Physicians, of Philadelphia, &c. Philadelphia: Lea & Blanchard. 1846. pp. 444. (For sale by Brautigam & Keen, Chicago.)

This is a reprint of "Horner's Practical Anatomy," a work which has for more than twenty years been before the profession, and almost the only one of the same character by an American author. It is a work of established reputation, and the illustrations added to this addition are well chosen, so that it will compare favorably with the best "Dissectors."

D. B.

ARTICLE VI.

A Practical Treatise on the Diseases of Children. By JAMES MILMAN COLEY, M. D., Member of the Royal College of Physicians, London, &c. &c. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846. 8vo. pp. 414. (From the Publishers.)

This work is one of the publications issued in the Select Medical Library, edited by John Bell, M. D. That it should have been selected for publication, by the erudite and experienced editor of this well known periodical, is in itself sufficient recommendation to the work. The author professes to give a comprehensive view of the diseases of children, with a view to render his work one of reference, and, we think, has succeeded well in his object. Upon some points of pathology and treatment there is some originality, and as regards treatment it is simplified to a degree which we cannot but admire. Our perusal of the work has not been as complete as we could wish, from the fact that it arrived too late for an extended notice. Should our present good opinion of it continue on more accurate examination, we may, in our next number present our readers with a review embracing extracts from its more important portions.

J. V. Z. B.

PART IV.—EDITORIALS.

ARTICLE VII.

COMMON SCHOOL CONVENTION.

In June, 1845, a State Common School Convention was held at Jacksonville, Ill., upon the adjournment of which, it was resolved: "that another should be held at Chicago in the autumn of 1846, immediately succeeding the Agricultural and Mechanical Exhibition then and there to be held." Messrs Geo. W. Meeker, William Jones and Wm. H. Brown, were appointed a committee to make the arrangements, in accordance with the resolution.

We have before us the circular issued by this committee calling upon all the friends of education in the West, to attend and aid to make the meeting profitable and interesting, and stating the objects of the convention and the subjects which it is intended will be discussed. An extract from the circular will give our readers an idea of the objects of the movement.

"The doings of the Convention, or the measures they may adopt, it is, of course impossible for us to announce. We can state however, that the following subjects were selected by the Convention at Jacksonville, and the following persons appointed to prepare essays upon them, which will be read at the Convention at Chicago.

"1. How may a system of Education be so conducted as to afford the best preparation for the various professional, agricultural, mechanical and commercial pursuits? Upon what principles, and to what extent should the course of instruction be accommodated to each class?

"2. Should the same system of education be pursued in regard to males and females, or upon what principle and to what extent should any difference be made?

"3. How can we extend the means of instruction to all classes of community?

"4. How may we accomplish the moral culture and elevation of all connected with our schools?

"5. Can a system of common schools be made efficient without the division of the state into political townships?

"6. Should the communication of knowledge, or the discipline of mind, be the primary object of the teacher? What course and methods of instruction are best adapted to these ends?

"7. How can we best elevate the character and qualifications of teachers?

"8. Are colleges and female seminaries indispensable as part of a system of general education?

"9. Should the course of instruction in colleges and female seminaries be conducted with reference to the preparation of competent teachers, and should legislative aid be granted, at least to the extent of the University fund for the attainment of this end? The nine queries were assigned as follows:

- No. 1. J. M. Sturtevant, President of Illinois College.
2. William H. Williams, Jacksonville.
3. Francis Springer, Springfield.
4. Prof. J. B. Turner, Illinois College.
5. A. W. Henderson, Chicago.
6. Rev. C. E. Blood, Madison County.
7. John S. Wright, Cook County.
8. Hon. Wm. Brown, Jacksonville.
9. T. M. Post, do.

If either of the individuals appointed shall be unable to be present, he will be expected to prepare his essay and forward to one of the undersigned, that it may be read. The essays will furnish the basis for discussing the subjects upon which they treat; and if any one should be unable to prepare his essay, it is expected he will procure some one to take his place capable of discharging the duty. The opening address will be delivered by Wm. H. Brown, Esq.

"To teachers, we would say, it is in contemplation to organize a Teachers' Institute immediately succeeding the Convention, convening probably on Monday morning, and continuing from one to two weeks. At the East, they have been tried for the last few years with the most happy results. The plan pursued, is to organize a regular school of the teachers, the most experienced alternately being appointed to instruct the others. Methods of imparting instruction in the various branches are presented, together with plans of government, discipline, &c. The benefits to teachers, of thus meeting together to learn the improvements in the art, profiting by each other's experience, and of increasing their interest and pride in their high calling, must be apparent to the most casual observer. It is expected that this Western Institute, will number several hundred members, all of whom will be gladly entertained by our citizens without charge; and when they return home, they will be prepared to organize county and neighborhood Institutes all over the West. No teacher who appreciates the importance and dignity of his vocation, will refuse to spend two or three weeks in going to and attending upon such a meeting; and if the parents realize the value of good instruction, they will not refuse to be at the little expense of the journey, which will be repaid with a thousand fold profit to their children. No teacher will regret his

attendance, but it is to be feared very many of them will regret not having made sufficient effort to be present.

Teachers, too—those who know from experience the wants of the West as to education—are the ones of all others who are needed to make the proceedings of the Convention preceding the Institute practical and profitable.”

The citizens of Chicago, at a meeting held on the 16th of July, appointed a large committee of arrangements, to make preparations for the entertainment of delegates, &c. &c. The following were the resolutions adopted on that occasion:

“*Resolved*, That we congratulate our fellow citizens in having our city selected for a Western Educational Convention to be held in Oct., and that we pledge ourselves to use all reasonable exertions to make the meetings and visits of the members among us, both pleasant and profitable.

“*Resolved*, That we most cordially tender the hospitalities of Chicago to all who will attend, and also to those who may remain to aid in the formation of a Teachers’ Institute.

“*Resolved*, That the following persons be appointed a Committee to see that each member of the Convention is provided with a place of abode; that as they arrive in the city, they be requested to record their names at the Prairie Farmer Office, where some one will be in waiting to direct them to their lodgings, and that those who attend be requested to send their names at an early day to Geo. W. Meeker, Esq., that a probable estimate may be made of the number that may be expected.”

It is expected that the Convention will be addressed by a number of gentlemen interested in the subject, as will be seen from the following:

“It may increase the desire with some to state that HENRY BARNARD, Superintendent of schools in Connecticut and Rhode Island, and Prof. DEWEY of Rochester, N. Y., are expected to be present; and that it is possible HORACE MANN, superintendent of Schools in Massachusetts, and other distinguished friends of Education from abroad may also attend. No efforts will be spared to bring together as many experienced and energetic friends of the cause as can make it within their power to attend on that occasion.”

We hope that our readers will exert their influence in procuring a large attendance, as our profession as well as other classes of the community, is deeply interested in the cause of General Education. From no one source are we to antici-

pate more hopeful influence in the abolition of empiricism, and a proper appreciation of true medical science, than from the general enlightenment of the public mind. Thursday evening, October 8th, is appointed for the opening ceremonies of the Convention.

ARTICLE VIII.

STATISTICS OF MEDICAL SCHOOLS.

We have received the Catalogues and Announcements of a number of Medical Institutions, from which it would appear that the number in attendance during the last session, and of those who have entered the ranks of the profession, will compare well with those of previous years. A general effort seems to have been made to increase the means of instruction for the coming session, each Institution vying with the others in presenting to students facilities for study as the best means of inducing attendance. We give below a list of the Institutions and the numbers in attendance upon the lectures of 1845-46, and the graduates of '46, as far as we have been able to learn.

	Students. Graduates.	
Medical College of Georgia,	112	33
University of Pennsylvania,	462	168
Jefferson Medical College,	469	170
Transylvania University,	171	64
Albany Medical College,	115	42
Louisville Medical Institute,	245	78
Willoughby Medical College,	164	30
Medical College of Louisiana,	103	19
Geneva Medical College,	178	
Medical School of Maine,	73	19
Harvard University,	159	31
Yale College, (Medical Institution,)	53	20
University of the City of New York,	407	131
College of Physicians and Surgeons, (N.Y.)	200	38
Western Reserve College, (Cleveland,)	160	50
Berkshire Medical Institution,	142	35
University of the State of Missouri,	92	29
St. Louis University,		11

Medical College of Ohio,	196	46
Castleton Medical College,	140	36
Rush Medical College,	50	10
Maryland University,	147	40
Indiana Medical College,	81	18
Medical College of South Carolina,	214	74
Pennsylvania Medical College,	94	38
Vermont Medical College,		24

ARTICLE IX.

OUR EXCHANGES.

The Buffalo Medical Journal and Monthly Review of Medical and Surgical Science, now in its second volume, has been much enlarged and improved in its appearance. Its accomplished editor, AUSTIN FLINT, M.D., is indefatigable in his efforts to render it worthy of the patronage of the medical public, and his efforts are seconded by the labors of several scientific gentlemen of note in his vicinity. No. IV, Vol. II. for September, is before us, and is replete with valuable matter. We always hail the arrival of this periodical with pleasure.

The Western Lancet and Medical Library, edited by L. M. LAWSON, M. D., and published at Lexington, Ky. has also been much enlarged, and is issued bi-monthly. Additionally to the Journal there is appended a library department, in which a valuable work on Auscultation is in progress of publication, a portion being appended to each number.

PART V.—ABSTRACTS.

ARTICLE X.

TRISMUS NASCENTIUM.

I. MARION SIMS, M. D., of Montgomery, Alabama, in the April number of the American Journal of Medical Sciences, has published an interesting paper, in which some new views, particularly those relating to its cause and treatment, are advocated. Anything which promises to elucidate this imperfectly understood subject is especially valuable.

Dr. Sims insists that the true seat of the disease is in the spinal cord, that its morbid anatomy consists first in a congestion, and then in a rupture of the minute veins and capillaries of the medulla spinalis, producing extravasation, which view is supported by Goelis of Vienna, Thompson of Philadelphia, and M. Billard. The cause of this venous congestion etc., is a continued dorsal position of the infant, associated with an imperfect ossification of the cranial bones. Six cases are detailed, three occurring in his own, and three in the practice of Drs. Boswell and Jones, to whom the author had suggested his ideas of the pathology of this affection. In the first case the child had lain during the whole of its illness exactly in one position all the time; the weight of the head resting wholly on the os occipitis. The fontanelles were open and very large, particularly the anterior. The bones were loosely attached by their commissures, and the os occipitis was pushed in on the brain, being over-lapped for a quarter of an inch or more along the whole course of the lambdoidal suture, by the ossa parietalia.

In the second case the infant had lain on its back ever since its birth, thirteen days, resting principally on the mother's or grandmother's arm, and at the time of Dr. Boswell's visit was held by the latter with the occiput resting on her arm. The occipital bone was considerably pushed in, and overlapped by the parietal bones. In the third case the infant was lying on its back, with some coarse cloth doubled under its head; the overseer said he always found the child lying on its back. The os occipitis was pushed deeply under and overlapped by the parietal bones. In the fifth instance,

the child was either lying in the objectionable position with its head on a pillow, or held on the lap with its occiput on the nurse's patella. The position of the cranial bones was as in the foregoing cases. In the sixth case, the position of the child and of the cranial bones were essentially the same; and in the fourth case the symptoms were produced by a tedious labor, by which, as the mistress of the mother said, the child's head was "mightily mashed."

The rationale of the pathology of this disease is as follows. When the foetal cranium is not sufficiently ossified to regain its proper shape after parturition, by its own elasticity, or when the child is constantly retained in the positions before described, with the weight of its head resting on the occipital bone, especially when the head is supported by an unyielding substance, the whole cerebral mass will be displaced. The cerebellum will be compressed between the fossa cerebelli and the tentorium, and will be tilted forwards so as to produce great pressure on the whole tract of the medulla oblongata as it rests on the basilar process of the occipital bone. The circulation through the sinuses and veins of the brain is retarded, the posterior edge of the foramen magnum constricts that portion of the medulla-spinal veins which empty their blood into the inferior cerebella veins; whilst the medulla oblongata compresses that portion of the same veins which run forward over the anterior or lateral edges of the foramen magnum to empty into the pretrosal sinuses; thus producing congestion of, and extravasation from the medulla-spinal veins, which form a delicate tortuous network around the spinal cord, between the pia mater and the arachnoid.

In the only case in which an examination of the spinal cord was had, there was found a coagulum of blood occupying the spine its whole length, enveloping perfectly the medulla spinalis, thicker as it approached the brain. The spinal veins were full of black blood.

It may be objected to this pathology and its causes, that as the occipital bone is more or less displaced inwards and upwards in every labor, this disease should always or more frequently occur. To which, the following is an answer, as well as being a part of the explanation of the manner in which the extravasation occurs. Extravasation does not take place as soon as the constriction is made at the edges of the foramen

magnum, because the medulla-spinal veins communicate with the great spinal lying exterior to the dura mater, and thus the blood is carried into the general circulation by the anastomoses with the vertebral, intercostal, azygos, lumbar, and sacral veins; and except in extreme cases, the compression in parturition is insufficient to produce the symptoms.

The case in which the child was born with its head "mightily mashed" is an illustration of the fact, that the compression at this period, when the bones of the head are much less ossified than usual, does occasionally produce trismus nascentium. In this instance it was present from the hour of its birth. But if the child remains for a considerable period in the position heretofore so often referred to, with the occipital bone forced in on the brain, the spinal veins all become congested. In this manner, the dorsi-spinal veins, which receive the blood from the muscles of the back, carry it horizontally forward between the vertebral arches into the meningo-rachidian, as they lie on the dura mater of the cord; they carry it forward into the general current of the circulation, emptying, by transverse branches, into the vertebral, superior intercostal, vena, azygos major and minor, and into the lumbar and sacral veins. This chain of venous trunks runs the whole length of the spinal column, and yet their contents are passed mostly horizontally forwards. There is no vis-a tergo to drive the blood horizontally forwards; or, as the child lies on its back, perpendicularly upwards, it almost ceases to flow, and the medulla-spinal ligated above, and dammed up on all sides, having no outlet for the blood brought down by the anterior and posterior spinal arteries, must necessarily yield, and pour out their contents into the dura mater.

The treatment consists in a rigidly careful prophylaxis. After the extravasation of blood the patient must almost necessarily perish. Of the six cases given two recovered, and in these as in the others, the treatment pursued was that of changing the position of the child, so that the weight of the head should fall on the parietal protuberance, on a soft pillow. When nursed of course the same precautions are to be observed. The application of blisters to the spine (in conjunction with proper posture) is suggested by Dr. Sims.

H. S. H.

PART VI.—SELECTIONS.

1. *On the Cure of Eruptions of the Head and Face in Children.**—[M. Trousseau makes some interesting remarks, in his *Journal de Medecine*, upon the rules that should guide the practitioner in endeavoring to heal the eruptions, sores, &c., which affect the head and face of young children. To avoid circumlocution, we will employ, in the extracts we make from the paper, the term by which these are designated in France—*les gournes*—equivalent to our appellation “breakings out.”]

It is a popular opinion that danger attends the attempt to heal these, and this is sometimes true when their manifestation is connected with a morbid diathesis. Others, however, unconnected with this, do much mischief, and should be healed at once. A diathesis may be acquired or congenital; and the *suppurative diathesis* is that, which of all others, is most evidently acquired. The “*gournes*” are, indeed, generally one of the manifestations of this; while in other cases the *dartrous diathesis*, which is usually hereditary, plays an important part in generating the eruption. The form of the “*gournes*” will vary, according as one or the other of these prevail. Impetigo, ecthyma, impetiginous eczema, intertrigo, furunculus, superficial phlegmon, and ophthalmia, are more especially connected with the suppurative diathesis; while lichen, psoriasis, eczema rubrum, pityriasis favus, and chronic inflammation of the eyelid, are more often dependant upon the dartrous diathesis.

“1. When, from distress, neglect, or other cause, a superficial phlegmasia becomes in the course of several months converted into a suppurating sore, in the groin, behind the ears, or upon the scalp of the child, the economy, which at first suffered from the presence of an useless discharge, accustoms itself to it to such an extent that, although its suppression at an early period would have been very advantageous, this must now be accomplished cautiously, or disease and ill health will result. 2. Again, when an impetigo suddenly develops itself in a child previously in ill health, and becomes chronic, the health may become manifestly improved as long as the eruption continues. It is evident that, for a certain period at least, it should not be meddled with, and even then that its cure should be very cautiously undertaken. 3. The development of the “*gournes*” may be the signal of serious disorders in a child prior to this in good health. In this case, their cure, if fever be present, should be set about at once, without any fear of the pretended effects of a retrocession. 4. When a child’s health is good, we must endeavor by every means to prevent the establishment of the “*gournes*,”

* Medico-Chirurgical Review.

for, if suppuration be accidentally established, it may give rise to other suppurations—in fact, generate a suppurative diathesis. This diathesis again may manifest itself, not only on the skin and mucous membranes, but also in the internal organs; and thus, in children suffering from “*gourmes*,” variola, rubella, scarlatina, &c., are always more fatal. 5. When the “*gourmes*” invade important parts, as the eyes, nasal fossæ, auditory canal, &c., we must use every means to prevent their extension.

“*Treatment*.—The superficial *excoriations* which are found behind the ears and between the folds of the skin in gross children, usually arise from negligence, and often disappear upon the mere observance of cleanliness. Soapy baths, dusting them with lycopodium, or the interposition of lint moistened in olive oil, usually suffice to dry them up; but when they are obstinate, white precipitate ointment, (3j. ad 3x. æung.) or Galen’s cerate, may be employed. Frequently, to cure the intertrigo behind the ears, it suffices to take care that the string of the cap be not too tightly tied, or to prevent the surfaces of the skin from coming in contact with each other.

Impetigo, *impetiginous eczema*, and *ecthyma* in their *acute* form require special treatment. Dr. Trousseau, regarding the two first as true eruptive fevers, just as scarlatina, variola, &c., is careful in not suppressing them too rapidly, although he does not encourage their development. So far from this, believing with Sydenham, that our object should be to prevent eruptive diseases becoming confluent, he prescribes prolonged baths, abstinence, acid drinks, and mild laxatives. The children are not to be too much covered up nor to be kept in bed. Excessive cleanliness is to be observed, and great care taken that they do not scratch the pustules, and diffuse the disease with their nails over other portions of the body. When the febrile action has ceased, we have to do with a mere local disease, and must get rid of it as soon as possible. Unfortunately, however, *impetigo* oftentimes succeeds to measles and scarlatina; in which case, our proceedings must be more circumspect. If the *impetigo* be too rapidly healed, in this case the lungs, or some other internal organ, will very probably become diseased, we having thus destroyed the revulsive affection of the skin which acted as a preventive, or as a curative if they were already affected. There are circumstances, however, in which such caution would be misplaced. Thus a violent inflammation of the ocular mucous membrane may spread to the eye itself, or a very severe *eczema* behind the ear may give rise to dangerous or even fatal enlargement of the cervical glands. In both these cases we must at once cure the eruption, as it gives rise to greater evils than we have reason to fear from its repercussion.

“When the *impetigo* and *eczema* become chronic, and the

condition of no internal organ causes alarm, I treat them with baths, ointments, lotions, purgatives, blisters, or depuratives. *Alkaline baths* are the best of remedies when the disease is attended with itching. To 75 or 100 quarts of water I usually add from 12 to 20 drachms of sub-carbonate of soda or potass. These baths most effectually clean the skin, soften the crusts, and relieve the pruritus. The dreadful suffering this last causes proves its relief alone is no slight advantage. With a solution rather stronger than that employed for the baths, lotions may be made and locally applied two or three times daily. These baths are suitable for the *dry forms of eczema*, for *lichen*, and for *pityriasis*. But when the *eczema* is very *acute*, and is accompanied by great redness and abundant discharge, *mercurial baths* are to be preferred. I prepare these by adding to 50 or 70 quarts of water three or four scruples of corrosive sublimate, dissolved in 1 oz. or 1½ oz. of alcohol. I have used these baths for fourteen years in every variety of darts affection of the skin, with the greatest advantage. Some practitioners consider them dangerous, but I order about a thousand annually, and even for women in the weakest state and children of the earliest age without ever seeing any accidents result from their employment. I have had children placed in these baths, half the skin of whose bodies had been destroyed by eczema, and no injurious absorption of the mercury has taken place, while the epidermis has become regenerated in a few days. Very young infants should not be kept in the bath more than quarter of an hour at the farthest, but those who are more than a year old may be retained in for half an hour. The severest forms of *eczema*, *lichen*, *erythema*, and *impetiginous eczema* soon yield to these baths, and they form the most appropriate treatment of the *syphilides* of infancy. In simple, chronic *impetigo*, I find *sulphureous* baths, formed of 1 or 2 drachms of sulphuret of potash to 50 or 70 quarts of water, best. But they are especially indicated in children covered with furunculi or little sub-cutaneous abscesses. The action of these baths is no doubt chiefly topical, for ointments composed of the same materials and applied to circumscribed spots are as useful; but when we find the alkaline baths correcting acid urine, and the mercurial baths relieving syphilis, it is evident that some portion of their material is absorbed, as is also shown by the odour which the sulphureous baths impart to the secretions. Indeed, experience has proved the efficacy of alkalis and mercurials, taken internally, in moderating the darts diathesis, which manifests itself in herpetic eruption.

When the affections of the skin are very limited, *lotions*, composed of the same materials, in larger proportions than in the baths, may be substituted. The strength of these must depend upon the susceptibility of the skin, and condition of

the lesion; but the practitioner must not be afraid of using them pretty strong, as the temporary irritation they excite is often advantageous to the affection. In the treatment of "*gourmes*" of the hairy scalp, the sulphuret of potassium may be employed in such strong solutions as to be almost caustic. The temperature of these lotions should be as high as can possibly be borne. This may seem strange advice at first, but doubtless much of the efficacy of the vapor bath in cutaneous affections depends upon the great heat thus produced, and the success attendant upon the employment of infusions of simple herbs by empirics in like manner results from their using these very hot.

"Among the ointments, those containing *mercury* occupy the very first place. White precipitate and calomel are usually to be preferred to red precipitate; but nothing absolute can be stated, for in apparently identical affections, sometimes the one and sometimes the other preparation proves most efficacious. The two former may be used in the proportion of one part to five or ten of cerate, and the red precipitate half as strong. In some children, lard, and in others cerate, forms the best vehicle. In some diseases of the hairy scalp, alkaline or sulphureous ointments are preferable to the mercurial ones, and this is the case especially in the moist and scabby forms. In the dry and squamous forms, ointments formed of mercury, of pitch, or of sulphate of copper, are highly useful. But I cannot too often repeat, that we must try various means, and neither allow ourselves to be too much encouraged by former success, or discouraged if we find a remedy useful in some cases of no avail in others. Even for the same disease, the practitioner should always be provided with a certain variety of remedies, which will all, some day or other, be required.

"I now come to the consideration of the employment of blisters. And first, let it be observed that a substance, such as Burgundy pitch, croton oil, or mercurial ointment, which, when applied, sometimes gives rise to the production of a local crop of vesicles, occasionally also leads to a general eczema, first acute and then chronic. This is a rare occurrence in men, rather more common in women, and very frequent in children. A few months seldom pass without my seeing, in hospital or private practice, an acute, simple or impetiginous eczema attack children, after the unavoidable employment of a temporary blister in pneumonia. Generally the disease assumes a chronic character; and if we consider that, up to this time, the child was not the subject of any cutaneous affection, we must admit the blister has been at least the occasional cause of its production. Seeing, then, that in a healthy skin a blister may develop a chronic cutaneous affection, ought we to attach much importance to this means for the treatment of

"*gourmes*," and rather ought we not reject it in the majority of cases? I have now in my wards a young child who, when the subject of a slight lichen upon some few points of the skin was ordered a blister by its attendant. A few days after, the arm to which this had been applied was covered with eczema which quickly spread over the rest of the body. I have frequently, in obedience to routine or theory, applied blisters to children affected with "*gourmes*," but have often repented doing so, and seldom seen benefit result. Believing, then, blisters only cause additional irritation without relieving that already existing, I prescribe them in cutaneous affections; but I employ them in treating the "*gourmes*" of the mucous membranes. Experience has often shown me disease behind the ear, or of the hairy scalp, alternating with ophthalmia or chronic eczema of the nasal fossæ, as if the two affections were incompatible. In this case, a blister to the arm is generally useful, although sometimes the derivation will not establish itself in the direction chosen by the attendant, but obstinately tends towards its original route. We may leave the blister on the arm, at the same time endeavoring to encourage the fluxion where it seems most willingly and beneficially inclined to place itself. But if blisters are of use in the cure of these, so to say, *alternating* "*gourmes*," they are not so in "*gourmes*" resulting from *propagation*. Thus, we may often see an impetiginous eczema gradually invade the forehead, eye-lids, conjunctiva, the rest of the face, and penetrate into the nose. I call this *propagation*, and in such a case blisters are of no avail. But if an ophthalmia replaces the eczema of the skin, which in its turn acquires predominance when the ophthalmia is relieved, I call it *alternating* or *compensating*, and here blisters are, in general, useful. If they are useful here, they are imperiously demanded when a bronchitis, an enteritis, a pulmonary, or intestinal catarrh is set up, and alternates with the cutaneous "*gourmes*;" for all these are but other manifestations of the same diathesis which a true pathologist must never overlook.

"To decide upon the exhibition of *purgatives* is also somewhat difficult. The popular idea is, that these medicines constitute our sheet-anchor in treating "*gourmes*." If a somewhat severe diarrhœa occurs in a child subject to these affections, we observe on the very first day the eruption becomes paler, and if it continue, the inflammatory fluxion entirely disappears, and the cure may be effected without any topical remedy. If, however, the diarrhœa is naturally, or under the influence of medicine, arrested, you find the cutaneous affection almost immediately take on all the marks of activity it had lost. So that the antagonism between the skin and the gastro-intestinal mucous membrane is evident enough. With some practitioners, an artificial and spontaneous diarrhœa are

the same things—in both, there is an intestinal flux. But the observer sees things differently. In spontaneous diarrhœa all the economy is prepared for this new fluxionary movement, and when it is established, it draws within its sphere of action a multitude of secondary vital acts. In artificial diarrhœa the economy resists the cause provoking it. There is doubtless a flux from the intestinal canal established; but it is isolated, all other acts of the economy retaining their independence. Compare the condition of the man who becomes the subject of a diarrhœa, with his who takes a bottle of Seidlitz water, observe the exhaustion and *malaise* of the one, and the little inconvenience which a much greater number of stools causes to the other. A woman has not her menstrual discharge or a man his hæmorrhoidal flux at their usual period, will the taking away a far larger quantity of blood than that usually lost from the vulva of the one, or the anus of the other, have the same effect on the economy? Some persons are affected several times in a year with an erysipelatous swelling of the nose or ear; substitute for such spontaneous irritation that produced by a large blister, and see if the effect will be the same. In a spontaneous act there is such a condition of the economy, that every function is in some measure subordinate to the actions about to take place, which can hardly ever be the case when the effect is sought to be produced by a therapeutical agent, unless, indeed, the indication has been well prepared and skilfully seized.

“I have said enough to show that we must not judge of the influence which a purgative will exert by that which a spontaneous diarrhœa produces. But, if in lieu of the transitory action of a purgative given from time to time, we produce an effect from day to day, or almost continuously; or again, if a temporary action be very energetic, and frequently renewed, we may produce results less marked, it is true, than those proceeding from spontaneous diarrhœa, but yet considerable enough to be of great importance to the practitioner. It remains to inquire whether a plan so acted upon is applicable to ordinary cases? I reply, it is not. It is dangerous for young infants, whether they are at the breast, or have been weaned. Gastro-intestinal phlegmasiæ, at this age, are of a grave character, whether considered as preventive of the active nutrition so requisite at this period of life, the acute, and often fatal affections they gave rise to, or the chronic ailments they predispose to. Purgatives, to be of service in “*gourmes*,” must be active, and it is easy to give rise to greater disorders than those we are seeking to combat. Such precautions are not required for adults, adolescents, or even for children above their third year, in whom these gastro-intestinal phlegmasiæ are established with difficulty, usually exempt from danger, and easily curable. If, in an infant, a slight diarrhœa, which

had caused neither exhaustion nor wasting, and yet has much improved the condition of the "*gourmes*," becomes arrested, we must endeavor by the aid of purgatives, to reproduce it, and maintain it as nearly as possible in the same state it had previously existed in.

"Various vegetable ptisans have acquired a reputation as *depuratives*, and many of these, as bitter-sweet or wild pansy, and also chicory-juice, are very useful adjuvants when taken for a long time by the children who have passed their first infancy. But I must protest against the employment of *cod's-liver oil* and *hydriodate of potass* to this end, even when the "*gourmes*" can be traced to a scrofulous origin. I have almost always found these two therapeutical agents produce vesicular and papular eruptions; and, during the treatment of rickets, I have frequently been obliged to suspend the administration of cod's-liver oil, because the skin had become covered with eruptions, sufficient in many cases to excite considerable febrile action."—*Bulletin of Medical Science*.

2. *Observations and Experiments on the use of Calcined Magnesia as an Antidote to Arsenic.* By ROBERT PETER, M.D., Professor of Chemistry and Pharmacy in the Medical Department of Transylvania University.

Since the announcement, by MM. Bunsen and Berthold, in 1834, of the efficacy of the hydrated peroxide of iron as an antidote to the poisonous effects of arsenious acid, the attention of toxicologists has been so strongly fixed on the properties of this substance, that they have in a great measure lost sight of the means formerly relied on in this species of poisoning.

It is very true that many of them are worthless as *antidotes*, as has been proved to be the case with charcoal, vinegar, sugar, butter, limewater, bitter decoctions, &c.; and that one, the liver of sulphur, is itself a poison; but there seems to have existed no good reason why the virtues of magnesia, as an antidote to arsenic, should have remained so long unappreciated.

This is the more remarkable from the fact, that "Mr. Hume of London, and others, have apparently found advantage from the administration of large doses of magnesia,"* in cases of poisoning with arsenic. Yet Orfila makes no mention of this substance in his *Toxicologie*, (4th edition,) although he elaborately disproves the alleged efficacy of charcoal; and Christison, placing it in the same category with "the fine impalpable powders, inert as physiological agents, and destitute of any true chemical action with oxide of arsenic;" remarks: "If this substance be of any use at all, which is doubtful, it can only act by covering the arsenical particles with its fine

* London Med. and Phys. Jour., xlv., 466, 545. Mr. Edwards, *ibidem*, xlix, 117. Mr. Buchanan, London Med. Repos., xix, 288. (Quoted from Christison on Poisons.)

insoluble powder, and so preventing them from coming in contact with the surface of the stomach; for in its state of magnesia it has no chemical action with oxide of arsenic."—(*Christison on Poisons*. American edit. 1845. p. 283.)

Chemical antidotes are those substances which, by combining with the poisons, or decomposing them, either change their properties, and thus disarm them of their corrosive or irritant action, or form with them new compounds which are inert in consequence of their insolubility in the fluids of the stomach. Thus, magnesia will neutralize the acids by combining with them, and thus avert their corrosive action; or it will decompose certain metallic salts, and reduce them to an insoluble and comparatively harmless state; and it will also, as we think we can demonstrate, combine directly with arsenious acid to form an *arsenite of magnesia*, which is insoluble in the ordinary fluids of the stomach.

The reactions of magnesia with arsenious acid do not appear to have been much studied by chemists. It is true that the *arsenite of magnesia* is mentioned among the salts, and is stated to be *insoluble in water*. The neutral *arsenite* of magnesia, (the salt formed by the union of the arsenic acid with magnesia) is also said to be insoluble. Yet the most simple experiment would demonstrate the error of Dr. Christison in his statement that "magnesia has no chemical action with oxide of arsenic."

The attention of the writer was drawn to this subject by the perusal of the following summary of facts, submitted to the French Academy of Science, by M. Bussy, as the results of his labors, and published in the *Comptes Rendus*. 18 Mai, 1846. p. 845. viz:

"1. That purified animal carbon, recently proposed, cannot be successfully employed as an antidote to arsenic.

"2. That pure magnesia, which has not been intensely heated, absorbs arsenious acid in solution, and forms with it a compound which is insoluble even in boiling water.

"3. That in the gelatinous state it absorbs it still more promptly.

"4. That animals to which arsenic had been administered, were always saved when we caused them to take sufficient doses of magnesia.

"5. That this antidote presents the following advantages over those which are at present employed, viz: that it can always be obtained at the apothecary's shop, that it easily and completely neutralizes the poison, and may be administered in a large dose without inconvenience, its general therapeutical effects being in accordance with the indications in this kind of poisoning.

"6. That magnesia decomposes tartar emetic, the salts of copper, and corrosive sublimate;" and there is reason to believe

that we may employ it with success to counteract the effects of those poisonous substances, as well as those of the metallic salts generally.

"7. That the salts of the organic alkalies, morphine, strychnine, &c., being also decomposed by magnesia, the administration of that substance in cases of poisoning with the organic products which owe their activity to the presence of the vegetable alkalies, might retard, and cause to be more difficult, the absorption of the poison,—this supposition it is proposed to verify by ulterior experiments."

Wishing to ascertain how far the results of M. Bussy, in relation to arsenic, could be verified, by the use of the ordinary calcined magnesia of the shops, the writer of the present article performed the following experiments.

In the first place, a solution was made by dissolving forty grains of pure lump white arsenic, reduced to powder, in five fluid ounces of distilled water, at a boiling temperature. The solution therefore contained one grain of arsenious acid to the fluid drachm.

Experiment 1.—One fluid drachm of the solution of arsenic was mixed with one drachm of calcined magnesia, and fifteen drachms of distilled water. The mixture was heated in a Florence flask up to about 150° Fah., when the lamp was removed, and it was allowed to stand about fifteen minutes. It was then filtered through paper and the clear solution tested for arsenic with *ammonio-nitrate of silver*. The delicate reagent only rendered the fluid slightly turbid, with a light colored, nearly white, precipitate. The addition of nitric acid, in which most of the light precipitate was insoluble, showed that only a trace of arsenite of silver was present, and that most of the precipitate was chloride of that metal, probably derived from the impurities of the magnesia. *Sulphuretted hydrogen* solution was then added to some of the filtered liquid previously acidulated with hydrochloric acid, and this test, which, according to Mohr, will indicate the presence of one part of arsenic in 200,000 parts of water, produced scarcely a perceptible change of color.

A current of sulphuretted hydrogen gas was then passed through the acidulated filtered liquid, for half an hour, which caused it to assume a scarcely perceptible yellow tinge, indicating the presence of a mere trace of the arsenious acid. Similar experiments with the above tests, made on a mixture of 1 fluid drachm of the original arsenic solution and fifteen drachms of water, without magnesia, gave well marked and copious precipitates in both cases.

The solution submitted to the action of the drachm of magnesia, contained one grain of arsenious acid in two ounces of water. The arsenic had evidently been almost entirely withdrawn from the solution by the magnesia; for the

tests used,—one of which will indicate the presence of that poison in the minute proportion stated above, and the other, the ammonio-nitrate of silver, still more sensitive, is capable of showing an evident reaction with only one part of arsenic in 400,000 parts of water,—were both brought near to the extreme limits of their power by the dilute solution.

The magnesia remaining on the filter was then washed with cold water, after which it was subjected to the action of boiling water; to which it did not communicate a trace of arsenic discernible by the silver test.

Experiment 2.—A fluid drachm of the original arsenic solution was again mixed with fifteen drachms of distilled water and one drachm of calcined magnesia, and the mixture was allowed to remain, *without application of heat*, at the temperature of 77° Fah., for twenty minutes, when it was thrown upon a filter. The filtered fluid gave a *slight* precipitate with the ammonio-nitrate of silver, which only partially dissolved in nitric acid, but was wholly soluble in ammonia. Sulphuretted hydrogen produced only a tinge of yellow in the acidulated fluid, but caused no sensible precipitate.

Comparative experiments with a solution of the strength of that submitted to the action of the magnesia, showed clearly that the greater part of the arsenic had been removed from the liquid by that substance acting at the temperature of 77°. As it was desirable to know *how much* of the arsenious acid would be removed from the solution of that substance by a given quantity of magnesia, the following experiment was made.

Experiment 3.—One fluid ounce of the original arsenic solution, containing eight grains of that substance, was mixed with a fluid ounce of water and a drachm of the magnesia, and heated up to blood-heat. After allowing it to stand for ten minutes it was filtered, and half a fluid ounce of the filtered fluid was carefully evaporated to dryness in a weighed porcelain capsule. The fluid became turbid with a white precipitate on attaining the boiling point, and appeared of a pasty consistence when nearly evaporated. On re-weighing the capsule, it was found to have gained one grain and nine-tenths of a grain. The capsule containing the residuum was then strongly heated, to drive off the arsenious acid, and on weighing it again, the loss in weight was found to be one grain and one tenth; which was the amount of the arsenic contained in the half an ounce of the filtered solution. As the arsenic solution which was submitted to the action of the magnesia, in this experiment, contained two grains of arsenic to the half ounce, or eight grains of that substance in the whole mixture, it is evident that the drachm of magnesia had withdrawn four grains and four-tenths of the arsenious acid from the solution; a proportion nearly as great as that which would have been removed by hydrate of the peroxide of iron under the same

circumstances, and which, from the manner of the performance of the experiment, does not give us the measure of the full extent of the action of magnesia on arsenic in solution.

It is evident from these facts, that magnesia would be a most useful agent in the treatment of poisoning with arsenic. Mixed with water, and administered continually, and in sufficient quantity, until all the poison is removed from the stomach, it would combine with the arsenious acid as soon as it became dissolved in the fluid of the stomach, and by withdrawing it immediately from solution, prevent its absorption into the living tissues. Even when the poison is taken in solution, we could doubtless succeed, by the speedy administration of a large quantity of this antidote, in gaining time to remove it from the stomach by the ordinary emetic means.

It is believed to be always desirable to evacuate the stomach freely after the use of *any* of the antidotes; more especially in poisoning with metallic substances; for, although the poison may for the time being, be converted into a compound insoluble in water, yet it might not be safe to allow that substance to remain long in contact with the secreted acids of the stomach.

Many persons may be disposed to think that, having in the hydrated peroxide of iron, a good antidote to arsenious acid, it would be folly to throw it aside for another which has not yet been sufficiently submitted to the severe test of experiment on the living subject. But the writer would suggest that the compound of iron is not always to be procured in time when it is wanted, and moreover is often inert from the improper manner of its preparation, while magnesia is almost always at hand, and can, generally, be procured in quantity; and it presents a range of antidotal power over various poisons not equalled by any other known substance. It is, therefore, to be strongly recommended as a substitute for the peroxide of iron, when the latter cannot be easily obtained.—*West. Lan.*

3. *Association of Medical Superintendents of American Institutions for the Insane.*—The Association of Medical Superintendents of American Institutions for the Insane, held its second meeting at Coleman's Hotel, in the City of Washington, on the 11th of May, 1846, the President, Samuel B. Woodward, M. D., in the chair, and Thomas S. Kirkbride, M. D., Secretary.

Present.

Dr. Samuel B. Woodward, of the Massachusetts State Lunatic Hospital at Worcester.

Dr. James Bates, of the Maine Insane Hospital, Augusta.

Dr. Andrew McFarland, of the New Hampshire State Hospital at Concord.

Dr. William H. Rockwell, of the Vermont State Hospital at Brattleborough.

Dr. Luther N. Bell, of the McLean Asylum for the Insane, at Somerville, Mass.

Dr. C. H. Stedman, of the Boston Lunatic Asylum.

Dr. N. Cutler, of the Pepperell Asylum, Mass.

Dr. George Chandler, of the Massachusetts State Lunatic Hospital, at Worcester.

Dr. John S. Butler, of the Connecticut Retreat at Hartford.

Dr. Amariah Brigham, of the New York State Lunatic Asylum at Utica.

Dr. Pliny Earle, of the Bloomingdale Asylum, New York.

Dr. G. H. White of the Hudson Lunatic Asylum, New York.

Dr. James Macdonald, of the Private Institution, Flushing, New York.

Dr. Thomas S. Kirkbride, of the Pennsylvania Hospital for the Insane, Philadelphia.

Drs. Stewart and Fenerden of the Maryland Hospital.

Dr. I. P. Stokes, of the Mount Hope Asylum at Baltimore.

Dr. Wm. M. Awl, of the Ohio State Hospital, at Columbus.

Dr. John M. Galt, of the Eastern Asylum of Virginia, at Williamsburgh.

Dr. I. W. Parker, of the South Carolina Hospital, at Columbia.

Dr. Walter Tellfer, of the Lunatic Hospital, at Toronto, Canada.

Dr. Wm. M. Awl, of the Ohio State Hospital, was elected Vice President of the Association, in the place of Dr. Samuel White, of Hudson, deceased.

Reports were received and read from various committees appointed at the last meeting of the Association:—

On the subject of the Moral Treatment of Insanity, by Dr. Amariah Brigham; on the Medical Treatment of Insanity, by Dr. Samuel B. Woodward; on Restraint and Restraining Apparatus, by Dr. Bell; on the Construction of Hospitals for the Insane, by Dr. Awl; on the Jurisprudence of Insanity, by Dr. Ray; on the Organization of Hospitals for the Insane, by Dr. Kirkbride; on the Statistics of Insanity, by Dr. Earle; on Asylums for Idiots and the Demented, by Dr. Brigham; on Chapels and Chaplains in Insane Hospitals, by Dr. Butler; on Post Mortem Examinations, by Dr. Kirkbride; on Asylums for Colored Persons, by Dr. Galt; on the proper provision for Insane Prisoners, by Dr. Brigham. An Essay on the Construction of Hospitals for the Insane was also read by Dr. Bell, and the subjects embraced in the Reports were minutely discussed by the Members of the Association.

The following preamble and resolutions were adopted:—

Whereas, Since the last meeting of this Association, Dr. Sam-

uel White of New York, the venerable and highly respected late Vice-President of this Association, has died:—

Therefore,

Resolved, That by the death of Dr. White, the Association, and the Medical Profession, have lost an esteemed and valued member, and the cause of humanity a useful and active friend. Particularly have the friends of the insane reason to mourn his loss, as he had long been successfully engaged in relieving the sufferings of this afflicted class of his fellow beings, and, by his labors and his writings, essentially aided in improving their condition.

Resolved, That we deeply sympathise with the surviving members of his family, and recall, at the present time, the excellencies of his character, his useful precepts, and the worthy example he presented of a Gentleman, Physician, and Christian, devoted to deeds of goodness, and whose long and active life was spent in promoting the welfare of his fellow men.

Resolved, That Dr. Brigham be requested to prepare an obituary notice of the late Dr. White, to be entered upon the minutes of the Association, and to be published.

Resolved, That the Secretary of this Association present a copy of these resolutions to the nearest relative of the deceased.

The following resolutions were also adopted by the Association during its different sessions:

Resolved, That the resolution of the last meeting, relative to Members of the Association, be so amended as to read as follows:—That the Medical Superintendents of the various incorporated, or other legally constituted Institutions for the Insane, now existing on this continent, or which may be commenced prior to next meeting, and all those who have heretofore been Medical Superintendents and Members of this Association, or who may be hereafter appointed to these stations, be, and they are hereby constituted Members of the Association.

Resolved, That in future, each regularly constituted Institution for the Insane on this continent, may have one representative in this Association;—that as heretofore, this shall be the Medical Superintendent, where such officer exists, but in those institutions in which there is a different organization, it may be either of the regular medical officers who may find it most convenient to attend.

Resolved, That the subjects, upon which committees were appointed at the first meeting of the Association, be continued, each in the hands of the Chairman of the respective Committees, to be reported upon at the next meeting.

Resolved, That in addition, each one of the following subjects be confided to a single Member of the Association, who

is hereby requested to report at the next meeting of the Association:—

1. Treatment of Incurables. Dr. Macdonald.
2. Is there any relation between Phrenology and Insanity? Dr. Fenerden.
3. The Classification of Insanity. Dr. Earle.
4. The admission of visitors into the halls of the patients. Dr. Ray.
5. Visits to, and correspondence with patients by their friends. Dr. Stokes.
6. The comparative value of the different kinds of manual labor for patients, and the best means of employment in winter. Dr. Rockwell.
7. The proper number of patients for one institution. Dr. Brigham.
8. The utility of night attendants, and the propriety of not locking patients' doors during the night. Dr. Chandler.
9. The advantages and disadvantages of cottages, for wealthy patients, adjacent to Hospitals for the Insane. Dr. Kirkbride.
10. The relative value of the different kinds of fuel for heating hospitals. Dr. Bates.
11. Insanity, and the condition of the insane in the British Provinces. Dr. Tellfer.
12. The nature and treatment of Insanity produced by the use of intoxicating liquors. Dr. Stedman.
13. The relations of Menstruation to Insanity. Dr. Fenerden.
14. Under what circumstances can the Insane of the poorer classes be properly treated with the greatest degree of economy. Dr. McFarland.
15. The effects upon the Insane of the use of Tobacco. Dr. Cutler.
16. Reading, recreation and amusement for the Insane. Dr. Galt.
17. On water closets in the wards and yards of Hospitals for the Insane. Dr. Bell.
18. On the construction and arrangement of Institutions for the Insane in Southern climates. Dr. Parker.

Resolved, That the members of this Association be urgently requested, with the concurrence of the friends of patients, to make post mortem examinations, in all cases of insanity which may prove fatal while under their care, and to report the result of their observations at the next meeting of the Association.

Resolved, That each Member of this Association be requested to ascertain the facts and circumstance (such as sex, age, civil state, vocation, mode and other matters susceptible of being tabularized,) of each case of suicide, occurring in his

respective State, between the first day of January and the last day of December, 1847, and forward an abstract of the same as soon after the latter date as convenient, to the Chairman of the Committee on Suicide: it being understood that in States having more than one Member, they be requested to divide their States by certain territorial limits.

Resolved, That it be recommended to the officers of the different Institutions for the Insane in this country, to have engraved, previous to the next meeting of the Association, a view and ground plan of their respective establishments, and of a size that will permit their being bound with their Annual Reports.

Resolved, That a committee of three be appointed to publish, in a collected form, the Transactions of the Association, or, under certain circumstances, such parts of the same as they may deem expedient.

Resolved, That the essays presented to this Association are understood to be the opinions of the Chairmen of the different Committees by whom they have been reported, and do not necessarily express the sentiments of other members relative to their details.

Resolved, That in case the Committee do not publish any of the essays, their writers then have the privilege of publishing them in a separate form, should they deem it expedient to do so.

Resolved, That the Secretary be directed to publish an abstract of the Proceedings of the Association, in the American Journal of Insanity, the American Journal of the Medical Sciences, and the New York Journal of Medicine.

The Association continued its session till the evening of the 14th of May, and adjourned to meet in the city of New York on the 2d Monday of May, 1848, at 10 A. M.

By order of the Association,

THOMAS S. KIRKBRIDE, *Secretary*.

This Association, first instituted during the last year, evinces a determination on the part of its members, that no efforts on their part shall be wanting to enable the Department, peculiarly their own, to keep pace with the advancement of other branches of Medical Science. From the well earned reputation of those composing the Association, and the responsible stations they hold, together with the vast field for observation afforded by the Institutions under their control, we look upon it as destined to do much to ameliorate the condition and improve the treatment of the unfortunate class of sufferers for whose benefit it was instituted. We are indebted

to the *New York Journal of Medicine*, for the above abstract of the proceedings of the second meeting.

4. *Treatment of Lead Colic.*—During the three years that I was with M. Gendrin, I saw a vast number of cases of lead colic; we had, indeed, nearly always two or three men thus affected in our wards, sent from the carbonate of lead manufactory at Clichy. All of these cases were treated with sulphuric acid, and I do not recollect having seen one in which the disease proved refractory to the treatment adopted,—a case or two of confirmed chronic paralysis excepted. The duration of the treatment, as far as I can collect from my notes, was about three days in slight cases, and six or seven in severe ones. The sulphuric acid was given, largely diluted with water, (forty-four drops to a pint of water,) two or three pints being administered in the twenty-four hours. The amount of pure strong acid taken in that time was, therefore, from one drachm and a half to two drachms. Sometimes the sulphuric lemonade, as it was familiarly called, was vomited as soon as ingested. Still, when this was the case, the patient was made to persevere in its use, and the stomach soon became accustomed to the acid, and retained it. When it was retained, the abdominal pains generally began to diminish after the first, second, or third day, the constipation soon giving way naturally, after they had become less intense. In all these instances, not a grain of any kind of medicine was given besides the sulphuric acid, nor even was an enema used, the sulphuric acid being the only medicinal agent resorted to, if we except baths.

At the commencement of the treatment, a sulphur bath was given to the patient, the result of which was, that the sulphur combining with the particles of lead that were on the skin, formed a black sulphuret. The amount of lead which is thus discovered to encrust, as it were, the skin of those who have worked at preparations of lead, is nearly incredible. I have seen men go into the sulphur baths quite white, and come out nearly as black as negroes. The lead lying on the skin having been thus made visible to the naked eye, the patients were supplied with a hard brush and half a pound of soft soap, and made to scrub themselves daily in a warm bath, until all the black sulphuret had been brushed off. The sulphur bath was then repeated, the sulphuret of lead brought out, brushed off and the process renewed until it no longer rendered visible any trace of lead.

This precaution is indispensable with all who labor under saturnine disease, if we wish to ensure patients against relapse. Whilst at the hospitals of La Pitié and Saint Louis, I have repeatedly had patients under my care with lead colic, who had been discharged as cured from other hospitals a few

weeks previously. The sulphur bath, which exhibited a thick coating of lead on the skin, explained at once the cause of the relapse. Indeed, the presence of this coating of lead on the surface of the body is, no doubt, the principle cause of the relapses which are mentioned by authors as occurring so often in these diseases. The lead which thus lies on the surface of the body is gradually absorbed, and, at last, poisoning having again taken place, all the symptoms to which it gives rise are manifested. No patient who has suffered, and been treated for lead colic, can be considered safe unless he has gone through the ordeal of a sulphur bath, with a perfectly white skin. One of the great advantages of repeating the sulphur bath during the treatment is, that the patients, whom it is easy to convince of the importance of getting rid of the metallic poison, when they see it plainly on their bodies, rub with real good will.

The mode in which the acid acts in neutralizing the poisonous effects of the lead is easy to explain. It combines, no doubt, with the lead in the tissues, and forms with it an insoluble sulphate or sulphuret, which is consequently inert, and is gradually eliminated from the economy. This is the interpretation adopted by M. Gendrin, and it appears rational enough.—Mr. Bennet in *London Lancet*, in *New York Journal of Medicine*.

5. *On Floodings*.—"1. Floodings rarely occur after natural delivery, to any extent, if properly guarded against. 2. They happen most frequently after instrumental and manual deliveries, and after deliveries rendered precipitate by the violence of the expulsive action, *in all of which cases they proceed from lacerations of the soft parts*, sustained during the passage of the child. 3. Those which occur after labors rendered tedious by the abnormal size of the child, may proceed either from laceration or sloughing of the parts. Some rare cases are on record, in which the blood would seem to have escaped by gravity from the uterine vessels, owing to the mother having been raised into an erect posture while in a debilitated state.* 4. Floodings which take place a few hours after delivery, are owing to wounded vessels which have acquired increased activity after the depression occasioned by the shock of delivery has gone off. 5. Those which take place some days after delivery, are connected with sloughing of the parts, which may either have been injured in the act of delivery, or become tainted by the presence of a putrid portion of the placenta." The phenomena of floodings being thus shown to be identical with those of hemorrhages from wounded arteries, the same plan of treatment is clearly identical in both cases. Floodings

* How can this be, unless there are uterine vessels communicating with the placenta?

then, are to be treated by exposure to cool air, by cold applications to the parts, or, if need be, by cooling injections into the uterus and vagina, by elevated position of the pelvis, and moderate doses of opium. If arterial blood flow rapidly and continuously, an examination should be made, and if a wounded artery is detected, it should be secured by the usual surgical means.*—*London Medical Gazette*, in *New York Journal of Medicine*.

6. *New Mode of Administering the Sulphate of Quinine*.—A memoir on the use of sulphate of quinine in intermittent fever by friction on the mucous surface of the mouth and fauces, has been addressed to the Academie des Sciences, Paris, by M. Ducros. The following are the conclusions at which he has arrived.—

1. The sulphate of quinine administered in sulphuric ether, by frictions on the tongue, the velum pendulum, the inside of the cheeks, and back of the pharynx, causes an abundant salivation with a strongly marked bitter taste, in the dose of five centigrammes.† The reaction on the spinal marrow excited by this dose is stronger than would have been produced by two grammes‡ taken into the stomach or intestinal canal.

2. The action of sulphate of quinine, administered in this manner, is almost instantaneous, whether employed in malignant intermittents, or in simple agues, or in temporo-facial neuralgia.

3. This immediate therapeutic action is especially important in malignant intermittent, since given in other methods the sulphate of quinine requires to be taken several hours before the paroxysm, while by this method it is sufficient if it be administered half an hour before the access.

4. A still greater advantage of thus employing the quinine in small doses, is the avoiding of all risk of poisoning by the remedy.

5. The rapidity of this action of the quinine in temporo-facial neuralgia is also a most important advantage.—*New York Journal of Medicine*.

7. *Useful Suggestions*.—Good advice cannot be too often repeated, nor in too many forms. We have read with pleasure, therefore, the views of Dr. Hughes Bennett, as expressed in the first of a series of articles under the above title in the *Edinburgh Monthly Journal*. He sums up the arguments which he advocates as a series of suggestions for the advancement of our science, and we extract them nearly in the author's words.—*Lancet*.

* *Medical Gazette*, vol. xxxvii., p. 150.

† About three quarters of a grain.

‡ Half a drachm.

"1. To encourage the idea among the profession which considers him to be the truly practical man who exercises a sound reason and judgment in the practice of medicine and surgery, based rather upon a knowledge of anatomy and physiology—morbid anatomy and pathology—than upon mere experience.

"2. To encourage the habitual use of specula, stethoscopes, pleximeters, sounds, microscopes, and every instrument, capable of bringing the products of disease under the immediate cognisance of the senses, and thus rendering diagnosis exact.

"3. To encourage the study of pathological anatomy on rational grounds—that is, by examining *all* the organs in every case—investigating into the minute structure of every morbid product—and by obtaining a chemical analysis of these, and of the blood, whenever this is practicable.

"4. To place in all hospitals connected with medical schools an officer well acquainted with morbid anatomy, and the modern means of cultivating it, whose duty it shall be to conduct the post-mortem examinations, keep a minute record of each, teach morbid anatomy to the students, and publish a yearly report.

"5. That in our public institutions the history of disease should not be recorded by young men inexperienced in observation, but should in all cases be dictated by the physician and surgeon.

"6. To extend and give greater importance to clinical instruction by introducing the system of bed-side tuition, so advantageously practised in continental universities, and by taking care that those who teach are enabled to communicate to their pupils the manual dexterity and knowledge in the use of all those instruments essential to an exact diagnosis.

"7, and lastly. To impress upon the legislature the necessity of introducing some system which will ensure the appointment to our public hospitals of well-educated physicians and surgeons, intimately acquainted with pathology and the principles of rational medicine. Otherwise, it cannot be reasonably anticipated that the extensive opportunities for observation which these institutions afford will ever be made available in advancing the healing art for the good of the community at large."—*Bulletin of Medical Science.*

8. *The Endermic Application of the Sulphate of Quinine.* By H. V. WOOTEN, M. D., of Lowndesboro', Alabama.—In July, 1842, I was called to a lady affected with intermittent fever, of a rather grave type. She had suffered several paroxysms, and the fever now continued through the apyrexia. She was entering upon the fourth month of pregnancy, and suffering extreme irritation of stomach. A physician had been prescribing for her several days, during which time the sul-

phate of quinine had been given in combination with morphine and various other anodynes, and aromatics, but all had been instantly rejected. The bare effort to swallow, produced retching, and it appeared that nothing could remain on the stomach, not even a small quantity of the ordinary secretions. Another paroxysm was expected in about four hours. I advised the administration of sulphate of quinine xx grs., sulph. morph. $\frac{1}{2}$ gr., in 3i . gum arabic mucilage, to be thrown into the rectum, and repeated in three hours. I had found this mode of administration to answer an admirable purpose, in a few cases before, but the rectum seemed as irritable as the stomach, and the enema was promptly rejected. It was repeated and rejected three times, which I learned on my visit next day, and the paroxysm occurred at the regular hour. At every chill she was attacked with uterine pains so severe as to threaten abortion; and aside from that danger, her general condition presented rather an alarming aspect. The remedial powers of the quinine seemed to be absolutely necessary in the case, and the only remaining way of introducing it was by endermic application. It was about twenty-six hours to the time for the next paroxysm. There was already a blistered surface over the epigastrium about seven inches square. We cut a piece of adhesive plaster large enough to cover it, laid the plaster upon the bottom of a warm waiter, and when it was sufficiently soft, poured the quinine upon it, and rubbed it on with a spatula, until it formed a complete covering of the plaster, and applied it over the blister. We prepared another twenty inches long, and three wide, which we applied to the spine, from the cervical vertebrae downwards, after sponging the skin with warm water. These plasters were carefully applied, (enough of the margin being left uncovered to adhere to the surface,) and nothing taken into the stomach but a few drops of water occasionally, when thirst rendered it absolutely necessary, until after the hour for the paroxysm, with the happiest effect. She had no chill, and as the chill was the cause of the uterine pains, and greatly aggravated the other symptoms, with it, she got clear of most of her distress, and improved very finely.

I have applied the sulphate of quinine endermically in four other cases, where, from various circumstances, I could not introduce it in a more direct way, and in every case with effect. I could detail them, but the practical result being so similar to the foregoing, it is unnecessary. I may mention, however, that in two cases the remedy was applied over a blister on the epigastrium, and in these it was successful in arresting the first paroxysm. In the two other cases, there was no blister, either on the epigastrium or spine; in one, it failed to arrest the first paroxysm, and succeeded on the sec-

and; in the other, it arrested the first, as in those cases where it was applied over a blister.—*Southern Med. and Surg. Jour.*

9. *Abstract of a Lecture on Antidotes to Poison.* By ALFRED BARING GARROD, M. D. (Pharm. Jour., from Dub. Medical Press.) The lecturer having defined the term *antidote*, divided antidotes into two classes;—first, those which alter the nature of the poison, and thus prevent its injurious action; and secondly, those which counteract the effect when once produced. The latter class he passed over as being more within the province of the medical practitioner.

The first class, which may be called *direct* antidotes, should be understood by chemists, and their efficacy depends on their immediate administration, which, however, should not supercede the use of the stomach-pump or emetics for the removal of the poison from the stomach.

Dr. Garrod classified poisons into inorganic and organic. Among the former, the mineral acids and the caustic alkalies should be neutralized by substances harmless in themselves, and capable of producing inert or innocuous compounds, a circumstance which should always be considered in the selection of an antidote. For instance, solution of caustic potash should not be given as antidote for oil of vitriol, but chalk, magnesia, or bicarbonate of potash or soda. For oxalic acid, lime water or chalk should be given, not potash or soda. For the caustic alkalies, such acids as are harmless should be selected; for instance, citric or tartaric acid, or vinegar, with mucilaginous drinks. For sulphuret of potassium, the best antidote is chloride of soda.

As an antidote for iodine, starch is efficacious when given in sufficient quantity, as it produces an insoluble and inert compound.

Arsenic being a poison more frequently used than any other many antidotes have been tried, among which are sulphuretted hydrogen, sulphur, lime water, &c., but this class of substances are less efficacious than the hydrated peroxide of iron, which, however, must be given in such quantities that there shall not be less than eight or ten grains for every grain of arsenic. Unless given in excess it is not likely to succeed, and emetics or the stomach-pump should also be employed.

Among the mercurial poisons, corrosive sublimate is the most dangerous, and the best antidotes are albumen, gluten, and the proto-sulphuret of iron. Eggs and flour being generally at hand should be given in considerable quantities. The proto-sulphuret of iron is prepared by adding hydrosulphuret of ammonia to a solution of protosulphate of iron. When this is within reach it is useful, as it forms an inert compound of mercury when added to corrosive sublimate.

For the salts of antimony—decoction of oak, elm, or other

bark, containing tannin, has been recommended, as this forms an insoluble tannate of antimony.

The salts of lead and baryta may be counteracted by sulphate of soda or magnesia. Albumen and caseine form insoluble compounds with salts of lead; milk may therefore be given. No sure antidote is known for the salts of copper. Sugar has been recommended as an agent capable of reducing copper salts, but it requires for this purpose a higher temperature than that of the stomach. Albumen *in excess* has been proposed; but albuminate of copper is soluble if excess of the sulphate be present. Common salt is the antidote for the nitrate and other salts of silver, as it forms an insoluble chloride.

The next class—namely, organic poisons, are much more numerous than those above mentioned; comprising prussic acid, the alkaloids, (strychnia, morphia, &c.,) as well as all other vegetable and animal poisons. On this part of the subject the lecturer dwelt more at length, and detailed the result of a course of experiments which has led him to recommend animal charcoal as an antidote for vegetable poisons in general, as well as for some of the mineral poisons. It has long been known that charcoal (either animal or vegetable) exerts a peculiar action on colouring matters and absorbs gasses, on which account it is used in filters for purifying water. It has also been observed to throw down certain substances from their solutions, for instance, lime, iodine, &c., as stated by Professor Graham in his Elements of Chemistry. Mr. Warington lately read a paper, at a meeting of the Chemical Society, on the removal of the bitter principle from infusions by animal charcoal. Makers of morphia and other alkaloids are aware that the product is diminished if much charcoal be used. Bertrand tried wood charcoal as an antidote for arsenious acid, corrosive sublimate, and the salts of copper; but in quantities so small as to be inert.

The lecturer had recently introduced the use of animal charcoal as an antidote for some of the inorganic poisons, but more especially for the organic. Before commencing his experiments it had occurred to him that the gastric juice might possibly interfere with the absorption of the poison by charcoal; but this he found not to be the case. His first experiments were with strychnia, which he administered to two guinea-pigs, in one case with animal charcoal, in the other without; and also to several rabbits. In all cases those animals which took the poison with a proper quantity of the antidote, were not at all affected, while the others died. But it appeared that to saturate half a grain of strychnia, two drachms of the charcoal were required, and unless given at least in this quantity, it was not efficacious. The same results were observed in the case of dogs and other animals; one-sixteenth

of a grain of strychnia was found sufficient to kill a frog, but with a proper quantity of charcoal a quarter of a grain was given without any poisonous effect. From half a grain to one grain was found to be enough to kill a dog in about ten or fifteen minutes; but when animal charcoal was given in the proportion of half an ounce to each grain of strychnia no effect was produced.

Nux vomica, which in doses of twenty or thirty grains will kill a dog of average size, was rendered innocuous by the administration of half an ounce of animal charcoal.

In the experiments with the pure alkaloids the antidote was given with the poison; in the case of the more mild vegetable poisons, the antidote was administered ten or fifteen minutes afterwards, and mostly with a favorable result.

Similar experiments were tried with opium and its preparations. In giving the tincture of opium it was necessary to take into consideration the effect of the alcohol, two drachms of which are sufficient to kill a dog, and this result is not prevented by charcoal.

The emetic properties of *ipécacuanha* were found to be counteracted by animal charcoal; and the antidote was found to be equally successful with *elaterium*, tincture of *aconite*, *aconitine*, *belladonna*, *stramonium*, *hemlock*, *cantharides*, and other vegetable poisons, as well as *hydrocyanic acid*.

The success of these experiments had induced the lecturer to try the efficacy of animal charcoal as an antidote for the mineral poisons, and with several of them he had found that when given in a large quantity it was more successful than the antidotes usually recommended. In many cases it was found to counteract or lessen the effects of *arsenic*, *corrosive sublimate*, the salts of *lead* and *copper*; but not so completely as to supercede the necessity of administering such substances as are capable of forming insoluble and inert compounds with the poison.

From the above experiments, the lecturer had come to the following conclusions:—First, that animal charcoal has the power of combining with the poisonous principles of animal and vegetable substances, and forming innocuous compounds; second, that it will absorb and render inert some mineral substances, but, except in the case of *arsenic*, is not so generally applicable to those poisons as their special antidotes, the quantity required being very great; third, that a certain amount of animal charcoal is required to neutralize the poison—for *morphia*, *strychnia*, &c., half an ounce to the grain for the substances from which these alkaloids are obtained, half an ounce to the scruple;—fourth, that the charcoal itself exerts no injurious action on the body.

The kind of charcoal employed in the experiments was the purified animal charcoal, prepared according to the directions

of the London Pharmacopœia—namely, ivory-black digested in dilute hydrochloric acid, washed and dried. It is improved by heating it to redness in a covered crucible. Ivory-black, if not purified, must be used in much larger quantity, and vegetable charcoal is efficacious only to a comparatively small extent.

In administering the charcoal it should be triturated with lukewarm water, so as to form a fluid of slight consistency, in this way the antidote may be given in ounce doses, or more, according to circumstances. In the selection of emetics, those only should be used which are not rendered inert by charcoal. Ipecacuanha would not operate in contact with it; but sulphate of zinc should be substituted.

In conclusion, the lecturer suggested the propriety of trying animal charcoal as an antidote for other subtle poisons, such as rabies, syphilis, the venom of serpents, &c., applied as a poultice to the part affected, also as a remedy for diabetes, and some other disorders arising from noxious or unhealthy secretions.—*Southern Medical Journal.*

10. *On the use of Galvanism in Lumbago, Sprains, and some other painful affections of the Muscles and Joints.* By M. RACIBORSKI. (*Gazette Medico-Chirurgicale*—from *Med. Chir. Review*.—M. Raciborski observes that the utility of Galvanism in paralysis of particular nerves is well known, and that Magendie has proved by many recent cases its service in neuralgia generally, but especially in that of the branches of the fifth pair. Having witnessed many successful applications of this kind, mostly in the wards of M. Bouillaud, the author, was led to believe the employment of galvanism might be advantageously extended to other affections characterized by violent pain and the absence of signs of inflammation, as muscular rheumatism and *lumbago*. His experiments have been highly successful, the suffering of this last painful affection being frequently forthwith relieved, after the patient had long tried other remedies in vain. The same may be observed of *rheumatism* affecting the muscles of the extremities. It is not easy perhaps to state the *modus operandi* of the remedy; but it would seem to be by directly subduing the pain, which prevents the contraction of the muscles, that galvanism produces the instantaneous relief seen in some cases. "Certain it is that, in many cases, we have applied galvanism with some success, even to painful swellings of the knees, rendering walking, if not impossible, at least very painful. Certainly galvanism did not cause the swelling to disappear, but the pain became dissipated, or so diminished as to allow the patient to walk about. We do not doubt that the forced contraction which the galvanic shock produces in the fibres of the muscles, rendered motion-

less by the rheumatism, must contribute considerably to the good effects derivable from this means."

Four or five cases are given which were relieved almost immediately by galvanism, or rather, perhaps, we should call it galvanic acupuncture, inasmuch as needles were inserted in the parts where pain prevailed, and then brought in contact with the galvanic battery. A very few shocks, which usually themselves caused considerable temporary pain, sufficed to give relief, and enable the patient to exert muscular action without suffering. One or two of the cases seem to us, however, to have all the characteristics of hysteria—but this matters little, inasmuch as an effectual means of relieving the pain of that troublesome affection is a *desideratum*.

"Since our notes were taken, we have had other opportunities of applying galvanism in analogous cases, and always with the same success; but at present we merely desire to draw the attention of practitioners to this new mode of treatment, we need not extend the paper by citing the particulars. Nevertheless, we cannot terminate it without signaling the admirable effects which galvanism produces in the treatment of *Sprains*. Every one knows that a sprain, although apparently a slight affection, often exacts much time for its cure. When it implicates the ankle or knee, it is not uncommon to see patients deprived of the use of their limbs during two or three months. It is the violent pain felt upon the slightest movement of the part (we are speaking only of simple, uncomplicated sprain,) which retards the cure. The other symptoms are of little consequence, and are usually dissipated promptly. Now, just as we have seen in lumbago, so in sprain, galvanism relieves this pain instantly, and allows the patient to walk without lameness."

M. Raciborski suggests that the galvanism may act by restoring the contraction and tension of the fibres of the articular capsule, (and perhaps those of the tendons,) which had been inordinately distended and elongated by the accident.—*Southern Medical Journal*.

11. *Mode of Diagnosing Buffy Blood*.—Dr. Wharton Jones has pointed out a very ingenious method of determining whether the blood is buffy or not, from an examination of a very minute portion of this fluid. It consists of quickly enclosing a drop between two pieces of glass, and observing, with the naked eye, the quickness with which it assumes a mottled appearance, and the smallness or largeness of the interspaces. In buffy blood the mottling is almost instantaneous, and the interspaces large; while in healthy blood it is delayed for half a minute or more, and the reticulation is minute.—*Dr. Cowan's Address, in Southern Medical Journal*.

12. *Water of Copaiba for Injections.*—Dr. Cattell recommends the following formula for the preparation of this article. R. Ol. Copaibæ, two ounces; magnesiæ carb., six drachms. Rub together and add four gallons, or less, of water. Filter. Cubebs may be prepared in the same way. This preparation is employed by injection in those cases, where the article is indicated, such as gonorrhœa, leucorrhœa, &c. By using injections, the nauseating effect of the remedy is avoided.—*West. Lancet*, in *Southern Med. and Surg. Journal*.

13. *Treatment of Gonorrhœa.*—Mr. McDonald, (*Lancet*), recommends the following treatment in this affection. Smear a bougie with ointment of the nitrate of silver, (R. Argent Nitratiss ʒj; adipis ʒj;) introduce it into the urethra for about three inches, and allow it to remain two or three minutes. Two or three applications have been found to cure the disease; and if used in the acute stage, one application is generally sufficient.—*Ibid* in *Ibid*.

14. *New Sign of Pregnancy.*—Dr. Pallender states that during a practice of 18 years, he has observed a peculiar smell of the vaginal mucus to be a constant and unerring sign of pregnancy. The smell is musty, something like that of spermatic fluid or liquor amnii; and, after a vaginal examination, it cannot be mistaken for any other odour. In a great many cases of pregnancy, during the first, second, and third months, when the condition of the patient was doubtful, owing to the earliness of the period, the author never, in a single instance, failed to discover the true state of the party by means of this sign. According to his latest observations, this odour is perceptible as early as the eighth day of gestation.—*American Journal*, in *Southern Med. and Surg. Journal*.

15. *On the Uses of the Lobelia Inflata.* By Abraham Livezey, A.M., M.D., of Lumberville, Bucks county, Pa.—Observing for several years past the use and abuse made of the lobelia by a numerous horde of quacks that abound in some parts of the country, and perceiving that those dangerous consequences, which have hitherto been attributed to this plant by many of the medical profession, did not result—and that, too, when administered by a set of ignorant pretenders, in enormous doses, and almost indiscriminately in all cases—I studiously applied myself to experimental observation, to ascertain with a greater degree of certainty, the therapeutic value of this plant. And during the past year I have had many excellent opportunities of testing its beneficial influence in many diseases of febrile and spasmodic character.

In pertussis, combining the tinct. lobel., of which Professor Eberle speaks so highly, with the acid. hydrocyan., extolled

by Thompson and Roe, with equal propriety might I want the receipt as a specific, as they do theirs—although such a thing as a *specific* probably does not exist, except it be sulphur for psora. In asthma, especially of a spasmodic kind, the most marked benefits result from the use of this plant singly, or combined as above—the existence of the nervous fibre of the bronchial surface, or the spasms of the mucous membrane of the bronchia, are speedily allayed, and, by a short course, a cure, or a *suspension* of some length at least, is the sequence of its administration.

For an adult—R. Tinct. lobel. inflat., ʒj.; acid. hydrocyan., gtt. i—xj. Ter quatuorve die. But if the paroxysm be severe, the tincture may be given in much larger doses, and repeated at short intervals, till entire relief is obtained. By this combination I have enabled several *inveterate* cases of asthma (which had been repeatedly prescribed for by various physicians, quacks and old women,) to pass for several months past, with a complete suspension of all their sufferings.

In diphtheritic laryngo-tracheitis, where the excitation of emesis cannot be readily accomplished, which frequently arises from the nature of the disease as well as the difficulty and unpleasantness in the administration of medicine to infants, this difficulty may be obviated by enemata containing a portion of the tinct. lobel., or pulverized plant, which at once relaxes the system, removes the tension of the chest, changes the seat of excitement to a distant part, and emesis readily ensues; the bowels in the meanwhile are emptied of their contents, and recovery from every distressing symptom immediately follows.

In all cases of coughs, especially when inflammatory symptoms manifest themselves, as in catarrhal affections in children as well as in adults, I consider the tincture of this plant, (or infusion, when the stimulus imparted by the alcohol might be objectionable) far preferable to ipecacuanha or the tartrate of antimony and potassa, being more decisive in its effects than the former, and a better and safer nauseant than the latter, without that fear of irritating the gastro-enteric mucous membrane, the pathological condition of which has been too much overlooked by earlier writers, but which is now claiming deserved attention.

This brings me to the consideration of the *lobelia inflata* in febrile disorders, incident to every section of country, more or less, in summer and autumn. When it is desirable (as in fact it is always) to lessen vascular action, and as a febrifuge, the "nitrous powders" sink into utter insignificance in comparison with this plant, which is not liable to the same objection as the tartarized antimony used in combination with calomel and the nitrate of potassa by many of the older practitioners, which too frequently increases that tenderness and

erethism already existing in the mucous membrane of the stomach and intestines.

In high vascular action, also, with cerebral disturbance, when the application of cups to the nape of the neck, &c., fails in restoring rationality to the sensorium, the most admirable results follow the administration of an enema, largely composed of the lobelia; or when accompanied with enervation and subsultus tendinum, the efficacy of the enema will be much enhanced by the addition of a portion of pulv. valer. and tinct. capsicum or camphor, which, when thus combined, produces a powerfully revellent action, changes the scene of excitement, and leaves the cerebral functions free.

Finally. In strangulated hernia, or in reducing dislocations of the largest articulations, where great relaxation is necessary a powerful enema of the plant, or of the bruised seeds, will fully answer the expectation of the medical attendant—attended, too, with equal benefit and much more safety than the tobacco injection used in the former difficulty, and will dispense with venesection, the tartarized antimony, and generally the hot bath, so universally recommended to overcome the rigidity of the muscular fibre.

These are the chief diseases of importance in which I have administered the lobelia inflata with entire satisfaction, and with a relief so prompt and decisive, as at once both astonished and delighted the patient.—*Medical Examiner, in Boston Med. and Surg. Journal.*

16. *On the Use of Kermes Mineral in Diseases of the Respiratory Organs.* By DR. HERPIN, of Geneva.—Dr. Herpin has diligently observed the effects of this medicine during eight years, and has arrived at some interesting conclusions respecting it. If we consult dictionaries, dispensaries, &c., we find this substance stated as being chiefly indicated in chronic and suffocative catarrh, humid asthma, and at the termination of pertussis and pneumonia, especially in aged persons. Dr. Herpin reports differently. He says that he has never seen its use followed by even temporary benefit in the latter stages of pneumonia in the aged, when the mucous rales are abundant and asphyxia imminent. Given, too, at the commencement of pneumonia following capillary bronchitis, it is far inferior to tartar-emetic: and alterative doses of this same remedy are also far superior to it in the capillary bronchitis of old persons and children. The same want of success attended its trials in asthma and pertussis.

But when the disease, instead of being situated in the parenchyma and smaller bronchi, occupies the larger passages, the result is very different. Laennec and all those who have come after him have repeated the erroneous statement, that bronchitis, from its very commencement, when a mere coryza,

imparts to the ear a loud *rale*. Dr. Herpin some time since showed that bronchitis at the upper part of the tube, accompanied by considerable secretion, gave no auscultatory sign whatever. It is in these cases, where no abnormal sound exists, that *Kermes* is so useful, and is most so in the acute stage. He does not mean to say that it will arrest the progress of every pulmonary disease beginning without auscultatory signs, for whooping-cough, pneumonia and phthisis are among such. The catarrhs commencing at the upper part of the tube are soon arrested; but if *rales* announce the supervision of deep-seated bronchitis, other medicines must be resorted to. In *tracheitis*, (denoted by pain opposite the top of the sternum; sometimes difficult deglutition, a hoarse, tearing paroxysmal cough and hoarseness,) the *Kermes* is still more indicated. No other medicine produces so rapid an effect in *laryngitis*, a few $\frac{1}{4}$ grain doses often removing the hoarseness in a few hours, when the disease is recent. In this way it is of great service to singers. *False-croup* is very advantageously treated by it, and if seen early enough, it may be of good service in the true disease. *Chronic Laryngitis*, when not dependent upon phthisis, may be benefitted by this medicine, but in an inverse proportion to its duration.—Even when it does not cure it (for relapse is very frequent) it gives at least great relief. In the only case of *thymous asthma*, Dr. H., has had an opportunity of trying it, and which was a very bad one, it succeeded completely. In affections of the *pharynx* no success followed the use of the medicine, unless indeed these were connected with disease of the larynx. A frequent cause of deafness is a catarrhal condition of the extremity of the Eustachian tube, and in this case the *Kermes* effects a cure if the deafness has not existed beyond some weeks, and even alleviates it frequently when of very old standing. From his observations, Dr. H. believes he may deduce the conclusion that *Kermes* is to some extent a specific for the affections of the upper portions of the air-passages.

The dose has varied from 1 to 12 grs. in the 24 hours. Dr. H. has never exceeded the latter quantity, and, as a general rule, from 3 to 6 grains suffice. If we except infants less than 2 or 3 years old, the dose need not be much varied on account of age, children tolerating the remedy almost as well as adults. It may be given in an emulsion, powder with sugar, lozenges or pills. At the commencement of the affection, or when the respiration is much oppressed, it is desirable to excite vomiting. Three grains will certainly effect this, as will sometimes one or two in adults, and half a grain in children. To avoid purging or vomiting, we should give only very small doses, and after meals. When tolerance is once established, the *Kermes* does not irritate the stomach again. When first given it causes a sense of heat and dryness in the throat, which

soon become relieved by an increased humidity and expectoration. Dr. Lombard, who has employed this medicine with excellent effects, has often observed rose-colored streaks in the expectoration; but these soon disappear.—*Medico-Chirurgical Review*, in *Missouri Med. and Surg. Journal*.

17. *On Anæmic Murmurs.* By H. M. HUGHES, M. D., Assistant Physician to Guy's Hospital.* In certain states of the system, or it may be, with certain conditions of the circulating fluid, as in chlorosis, or in anæmia from hemorrhage, or from other causes, murmurs frequently arise from the passage of the blood, independently of absolute disease of the heart or great vessels. These are termed *anæmic murmurs* or "*chlorotic bruits*."

They are ordinarily of the softer kind, and resemble the blowing of a pair of bellows ("*bruit de soufflet*"), but they are sometimes quite harsh, and resemble the rougher morbid sounds, as that of filing or sawing ("*bruit de râpe* and *bruit de scié*").

They are very generally supposed to be confined to the aortic openings. This is certainly a mistake. They are most assuredly very frequently connected with the pulmonary artery, in which murmurs, quite independent of any disease of the vessel or of its valves, are far from uncommon.

Murmurs often arise from some body pressing upon this vessel; as a solid mass, the result of pleurisy, of pneumonia, or of phthisis, or enlarged bronchial glands, abscesses of the anterior mediastinum, &c., &c. The murmurs frequently also coexist with chlorosis, or with other forms of anæmia. Are these latter murmurs, then, whether in the pulmonary artery or in any other part of the circulating system, to be distinguished with tolerable certainty from morbid sounds, the result of organic obstruction within or without the heart or large vessels?

Generally speaking, they may, I believe, be distinguished from each other; but they certainly cannot always be so; and never with absolute certainty by the mere character of the murmur alone. There are, I feel assured, some examples of these anæmic murmurs, which can be proved to be simply functional, and not to arise from organic disease of the heart or its vessels, or from pressure upon them, only by the results of treatment.

Let, then, the student be careful not to assert too confidently that a patient on the one hand, has organic disease of the heart, or great vessels, merely because he has a harsh murmur over the aorta, an occasionally irregular rhythm, and a vibrating pulse, which usually coexist with an anæmic condition of the body, or he may cause unnecessary alarm and

* Clinical Introduction to the Practice of Auscultation, &c., p. 221.

anxiety; nor let him, upon the other hand, too hastily determine, that, because a murmur is soft, and his patient is an hysterical girl, with a pale face, and is subject to leucorrhœa and to amenorrhœa, that she has no organic disease; or some day, to his great surprise, grief, and mortification, and possibly also to his disgrace, he may find she has died suddenly with diseased heart.

Anæmic murmurs, however, it may be stated, are very local and are generally pretty much confined to the situation of the sigmoid valves, either aortic or pulmonary, or both; they do not follow the course of the large vessels so fully, or so frequently, as do the murmurs arising from disease of the valves, or of the arteries: they occur only during the systole of the ventricles; and as they cannot arise from regurgitation through the mitral valve, they are not heard very distinctly below the left nipple; they are always, so far as I know, accompanied with a smart smacking impulse; they generally disappear for a time while the individual is quiet, mentally as well as bodily, if by that quiet the heart assumes a natural impulse; and they are always diminished, and generally disappear entirely, under suitable treatment.

The origin of the anæmic murmurs has latterly been very generally attributed to a watery condition, or a diminution of ordinary viscosity, of the blood: in consequence of which it is believed that the particles of the fluid move more easily over each other, are therefore more freely agitated, and thus give rise to the vibrations which produce the murmur. This may have some, and perhaps an important, influence in producing them.

But there are other circumstances which also appear to play an important part in their causation. The principal of these is the remarkably quick and sudden contraction of the ventricles; in consequence of which the fluid contents of the cavities are propelled through the comparatively small area of the mouths of the large arteries in a shorter time than during the leisurely contractions of health, or the frequent, but not sudden, contractions existing in some other forms of disease. Though, therefore, no actual contraction exists, an obstruction is practically produced by the increased velocity with which the blood is propelled through the aortic and pulmonary openings. The increased agitation in the fluid thence arising it is at least probable, has a principal part in the production of anæmic murmurs.

If the heart beat quietly, and the impulse be natural, however decided the pallor of the face, and whatever the watery condition of the blood, no murmur, I believe, exists, when no mechanical obstruction is present.

It is also possible that the *quantity* of the circulating fluid is decreased in such cases, in addition to its *quality* being altered,

and that while, by the elasticity of their coats, the arteries are capable of accommodating themselves to the diminished quantity of the fluid, the cavities of the ventricles retain their normal capacity, and that on this account an absolute, as well as a comparative obstruction, may exist to the transit of the blood.

Concurrently with these anæmic murmurs at the origin of the large arteries, there is often heard, upon the application of the stethoscope to the side of the neck, a curious sort of humming noise, which ceases when firm pressure is exerted upon the jugular vein at a point above that on which the end of the stethoscope is placed. It is continuous, not intermittent like the arterial murmur, and is, therefore, sometimes called the "continous humming," as well as the "venous murmur," — "*bruit de diable*," &c.

It most probably depends upon partial obstruction to the quickened flow of blood through the veins. Strong pressure causes it to cease; but without pressure, *directly or indirectly applied*, it is, I believe, never heard. Like the anæmic murmur of the arteries, it is supposed to be associated with a watery condition of the blood, and it is, we are told, a frequent, if not a constant, attendant upon that state of the system with which such a watery condition of the blood is a concomitant.

This statement is not made from my own observation, but if true, the venous hum may perhaps be considered a useful assistant indication of the anæmic state.

But great obstruction to the blood may, as has been previously hinted, exist; extensive disease may be present in the valves of the heart, or in the large arteries, and yet no murmur may be heard. This arises from circumstances which may be, as they have already been partially, illustrated by the stream, in which a certain rapidity of the current is necessary to produce such an agitation of the water as will give rise to sound. Though the bottom of a rivulet be very uneven and its banks exceedingly irregular, yet if the current be not tolerably strong, little or no ripple will be produced, and no sound will be generated. It is just so with the blood; rapidity of the current of the blood, as well as obstruction thereto, is necessary to produce such an agitation among the particles of the fluid as will give rise to sound.

Hence it often happens that a heart with extensive disease of the valves may be without murmur while the patient is quiet, and the circulation is slow; though immediately the circulation is accelerated, either by physical exertion or by mental emotion, a murmur becomes distinct. Hence, also, it happens, that when the cavities of the heart become greatly distended, in consequence either of the magnitude of the obstruction, or of defective nervous power, the ventricles are frequently incapable of acting upon and propelling their con-

tents with sufficient force to produce a murmur. The channel is irregular enough, but the rapidity of the current, and of the resulting vibrations, is not equal to the generation of sound. Hence, likewise, it arises, that when fluid is present to a large amount in the pericardium, the heart may be so oppressed with the accumulation upon the exterior, that, though great obstruction exist within, no murmur is produced. Thus it will often be observed that when the obstruction is greatest, the murmur, if even it be heard at all, is very feeble; and that when the obstruction is small, the murmur is very loud; thus also, in persons who, for weeks and months, and even years, have presented notably morbid cardiac sounds, these sounds, if the individuals are not carried off suddenly, very frequently, or perhaps even generally, cease altogether some days before death.

The cause of this, as before stated, is either that the heart does not contract with sufficient power, or if it act forcibly, that it cannot act upon, and propel through the contracted orifices, the large quantity of blood which distends its cavities with a rapidity sufficient to give rise to sound.

Let, then, the student ever bear in mind the truth, that mere obstruction is not in itself sufficient, but that a certain force or rapidity of the circulation must be necessarily combined with that obstruction, to give rise to morbid endocardial sounds. Murmurs may exist without any obstruction of an organic kind; but without a certain degree of force in the circulating current they cannot exist.—*Southern Med. and Surg. Journal.*

18. *Certificates of Medical Men to Quack Remedies.*—Certificates of medical men to unqualified, ignorant, or unprincipled persons respecting preparations which are either universal, secret, or the objects of patents, have already been severely condemned on many occasions in the pages of *The Lancet*. But the subject is so important in itself, and its ramifications are so extensive and injurious, that very much remains to be said and reasoned regarding it. We hope to see the day when every man will from conscientious feelings, refrain from granting such certificates under any circumstances whatever, and when every one who desires well of his profession, will take the most energetic means to remove any suspicion of collusion with quacks and quackery. If this feeling could be actively aroused in the profession, we should no more see quacks adopt the names of medical men, and forge their certificates to the most destructive and abominable nostrums, nor have to witness otherwise respectable men making themselves ridiculous by testifying to the virtues or harmlessness of the most inconsiderable trifles. We smile at the obsolete power possessed by the ARCHBISHOP OF CANTERBURY, of making

his footman or valet a doctor of medicine, irrespective of education, or any other claim to the honour; yet we tolerate the still more mischievous system by which professional men themselves make practitioners in medicine by the grant of certificates. But we hold that every certificate granted respecting medicinal talent or virtue to any extra-professional person or thing, goes as directly towards constituting the ignorant medical practitioners, as the most flagrant abuse of the power vested in the archbishop ever did or could. It is no use mincing about terms or titles; the men we produce below,—HOLLOWAY, HUNT, KIDDLE, NEWBERRY, DA SILVA, COCKLE, STIVENS, SMITH, FRANKS, RUSPINI, and the rest, are as much medical practitioners, engaged in obtaining money by prescribing medicines, or medical treatment, as Dr. CHAMBERS or Sir BENJAMIN BRODIE themselves. The more is the scandal that they should, any of them, be able to vaunt medical sanction of any kind to their, in many instances, nefarious proceedings.—*Lancet*, July 25, 1846, in *Medical News*.

19. *Mode of arresting Hemorrhage from extraction of a tooth.*—The editor of the *Lond. Med. Gaz.* states that he has known the most obstinate bleeding, following the extraction of a tooth and continuing some hours, arrested by the use of the oil of turpentine on a pledget of lint, kept over the bleeding surface for a short time by moderate pressure.—*Med. News*.

20. *Combination of Carbonate of Iron with Sulphate of Quinine in Intermittent Fever.*—Prof. LIPPICH, of Padua, recommends the addition of the carbonate of iron to the sulphate of quinine in the treatment of periodical fevers. The following is his formula:—

Carbonate of iron,	-	-	One gramme.
Sulphate of quinine, -	-	-	One gramme.
Extract of taraxacum	-	-	q. s.

To be made into a mass of proper consistency and divided into thirty pills, two of which are to be taken every two hours. The carbonate of iron may be gradually increased to two grammes.—*Gaz. Méd. de Paris*, in *Med. News*.

21. *Treatment of Aphthæ by Sulphuric Acid.*—Prof. LIPPICH, of Padua, has recommended the following liniment in the treatment of aphthæ:—Honey, 15 parts; diluted sulphuric acid, 1 part, by weight. The ulcerated surfaces should be occasionally brushed over with this liniment by means of a camel's-hair pencil. The proportion of sulphuric acid may be increased if the case is obstinate.—*Med. News*.

22. *Singultus.*—M. ROSTAN has recently employed with success strong pressure on the epigastrium in several cases of severe hiccup.—*Ibid*.

TO READERS AND CORRESPONDENTS.

Communications have been received from Prof. M'Lean, Drs. Jos. W. Cooke, Lyman Brackett, and Wm. Butterfield.

We have also received the following works and periodicals:—

The United States Dissector or Lessons in Practical Anatomy. By Wm. E. HORNER, M. D. Edited by HENRY H. SMITH, M. D. Phil: Lea & Blanchard. 1846. pp. 444. (From the Publishers. For sale by Brautigam & Keen, Chicago.)

Coley on Infants and Children, in Select Medical Library. Edited by JOHN BELL, M. D. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846. pp. 414. (From the Publishers.)

Researches, Historical, Topographical, and Critical, on Yellow Fever. By BENNET DOWLER, M. D., of New Orleans.

A Review of "Homœopathy, Allopathy & Young Physic," by L. M. LAWSON, M. D.

Summary of the Transactions of the College of Physicians of Philadelphia, from April to August, 1846.

Statements of Facts in Relation to the Expulsion of James C. Cross from Transylvania University.

A Vindication of Character and an examination of the Accusations of Dr. T. REYBURN's Supplement to the St. Louis Med. and Surg. Journal. By F. KNOX, M. D.

Dr. FOUCAUD's second defence against the charges of Dr. REYBURN.

Circular announcing a Course of Private Medical Instruction by WM. H. VAN BUREN, M. D., and C. E. ISAACS, M. D., of New York City.

Report of the Medical Department of the University of Pennsylvania, for the year 1846: to the Alumni of the School. By the Medical Faculty.

Annual Circular of the Medical Department of Illinois College, Jacksonville, Ill.

Annual Announcement of the Medical Department of Pennsylvania College, Philadelphia.

Catalogue of the Faculty and Students of the Medical Department of the University of the State of Missouri for 1845 and '46.

Annual Circular of the Massachusetts Medical College, with a history of the Medical Department of Harvard University. A catalogue of Graduates, &c., Boston.

Annual Announcement of the Medical Department of the St. Louis University.

Catalogue of works in all branches of Medicine and Surgery, including the Collateral Sciences. Published by Ed. Barrington & Geo. D. Haswell, 293 Market st. Philadelphia.

I. & H. G. Langley's Medical Catalogue for 1846. No. 8 Astor House, New York.

The Journal of Health and Monthly Miscellany, Boston. (In Exchange.)

The Medical Examiner. (In Exchange.)

The Bulletin of Medical Science. (In Exchange.)

The Western Journal of Medicine & Surgery. (In Exchange.)

The Buffalo Journal, and Medical Review. (In Exchange.)

Southern Medical & Surgical Journal. (In Exchange.)

The Western Lancet & Medical Library. (In Exchange.)

The St. Louis Medical and Surgical Journal. (In Exchange.)

The Medical News and Library. (In Exchange.)

The American Journal and Library of Dental Science. (In Exchange.)

The Boston Medical and Surgical Journal. (In Exchange.)

The Missouri Medical & Surgical Journal. (In Exchange.)

The New York Medical & Surgical Reporter. (In Exchange.)

The New York Journal of Medicine and the Collateral Sciences. (In Exchange.)

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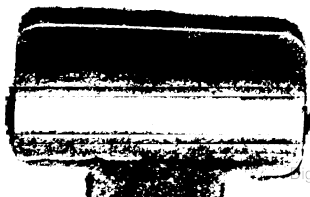
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PATENT MEDICINES of the most approved kinds, and **HAVANNA & PRINCE CIGARS** warranted genuine.

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The Subscribers have made arrangements that will ensure them a full supply of the above article for the coming season, having on hand, and on the way 800 oz., which we warrant pure and also possesses the advantage of full weight. We are aware that this market has not been well supplied with this article, at times when it was most needed, and take this method to assure Dealers and Physicians, that they may depend upon us, for any quantity, and at prices as favorable as it can be had in the Eastern markets.

STEBBINS & REED Druggists.

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June 3, 1846.

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